HITACHI

PA **No. 0113**

60SDX88B

SERVICE MANUAL

NTSC DP86 Chassis

R/C: CLU-612MP
CLU-617MP

CONTENTS

SAFETY PRECAUTIONS 2
SERVICING PRECAUTIONS 6
TECHNICAL CAUTIONS 10
SPECIFICATIONS 11
CIRCUIT PROTECTION 11
CAUTIONS WHEN CONNECTING/DISCONNECTING THE HV CONNECTOR 12
GENERAL INFORMATION 13
CUSTOMIZED PICTURE AND SOUND ADJUSTMENTS 14
SERVICE ADJUSTMENTS 21
TROUBLESHOOTING 40
PROTECTION CIRCUIT BLOCK DIAGRAM 53
BASIC CIRCUIT DIAGRAM 55
PRINTED CIRCUIT BOARDS 72
BLOCK DIAGRAM 79
WIRING DIAGRAM 80
EXPLODED VIEW 83
REPLACEMENT PARTS LIST 84

CAUTION: Before servicing this chassis, it is important that the service technician read the "Safety Precaution" and "Product Safety Notices" in this service manual.

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a ⚠ on the schematics and on the parts list in this Service Data and its supplements and bulletins. Before servicing the chassis, it is important that the service technician read and follow the "Safety Precautions" and "Product Safety Notices" in this Service Manual.

*For continued x-radiation protection, replace picture tube with original type of Hitachi approved equivalent type.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

PROJECTION COLOR TELEVISION

MARCH 1999 **HHEA-MANUFACTURING**

SAFETY NOTICE
USE ISOLATION TRANSFORMER WHEN SERVICING

Components having special safety characteristics are identified by a ⚠ on the schematics and on the parts list in this service manual and its supplements and bulletins. Before servicing this chassis, it is important that the service technician read and follow the "Safety Precautions" and the "Product Safety Notices" in this Service Manual.

For continued X-Radiation protection, replace picture tube with original type or Hitachi approved equivalent type.

This Service Manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health and Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with solder. Also, when soldering do not inhale any smoke or fumes produced.

This television receiver provides display of television closed captioning in accordance with section 15.119 of the FCC rules.

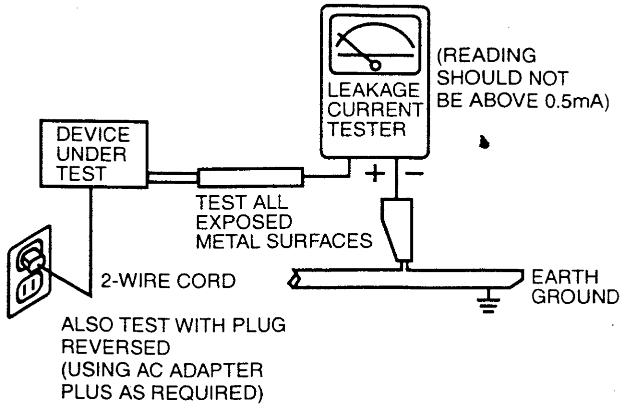
SAFETY PRECAUTIONS

1. Before returning an instrument to the customer, always make a safety check of the entire instrument, including but not limited to the following items.
   a. Be sure that no built-in protective devices are defective and/or have been deleted during servicing. (1) Protective shields are provided on this chassis to protect both the technician and the customer. Correctly replace all missing protective shields, including any removed for servicing convenience. (2) When reinstalling the chassis and/or other assembly in the cabinet, be sure to put back in place all protective devices, including but not limited to, nonmetallic control knobs, insulating fishpaper, adjustment and compartment covers/shields, and isolation resistor/capacitor networks. **Do not operate this instrument or permit it to be operated without all protective devices correctly installed and functioning. Servicers who defeat safety features or fail to perform safety checks may be liable for any resulting damage.**

   b. Be sure that there are no cabinet openings through which an adult or child might be able to insert their fingers and contact a hazardous voltage. Such openings include, but are not limited to (1) spacing between the picture tube and cabinet mask, (2) excessively wide cabinet ventilation slots, and (3) an improperly fitted and/or incorrectly secured cabinet back cover.

   c. **Antenna Cold Check** – With the instrument AC plug removed from any AC source, connect an electrical jumper across the two AC plug prongs. Place the instrument AC switch in the on position. Connect one lead of an ohmmeter to the AC plug prongs tied together and touch the other ohmmeter lead in turn to each tuner antenna input, exposed terminal screw and, if applicable, to the coaxial connector. If the measured resistance is less than 1.0 megohms or greater than 5.2 megohms, an abnormality exists that must be corrected before the instrument is returned to the customer. Repeat this test with the instrument AC switch in the off position.

   d. **Leakage Current Hot Check** – With the instrument completely reassembled, plug the AC line cord directly into a 120V AC outlet. (Do not use an isolation transformer during this test.) Use a leakage current tester or a metering system that complies with American National Standards Institute (ANSI) C101.0 Leakage Current for Appliances and Underwriters Laboratories (UL) 1410, (50.7). With the instrument AC switch first in the on position and then in the off position, measure from a known earth ground (metal waterpipe, conduit, etc.) to all exposed metal parts of the instrument (antennas, handle bracket, metal cabinet, screw heads, metallic overlays, control shafts, etc.), especially any exposed metal parts that offer an electrical return path to the chassis. Any current measured must not exceed 0.5 milliamps. Reverse the instrument power cord plug in the outlet and repeat test.



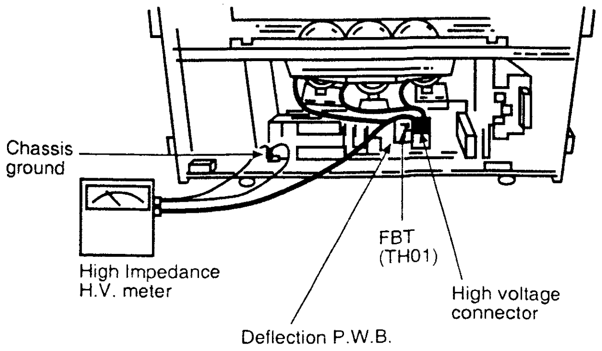
AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS SPECIFIED HEREIN INDICATE A POTENTIAL SHOCK HAZARD THAT MUST BE ELIMINATED BEFORE RETURNING THE INSTRUMENT TO THE CUSTOMER OR BEFORE CONNECTING THE ANTENNA OR ACCESSORIES.

   e. **High Voltage** – This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply will all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit may correctly be operated.

   f. **Service Warning** – With maximum contrast, operating high voltage in this receiver is lower than **33.0 kV.** In case any component having influence on high voltage is replaced, confirm that the high voltage with maximum contrast is lower than **33.0 kV.**
   To measure H.V. use a high impedance H.V. meter. Connect (-) to chassis earth and (+) to the CRT anode button. (See the following connection diagram.)

   Note: Turn power switch off without fail before the connection to the anode button is made.



g. **X-radiation – TUBE:** The primary source of X-radiation in this receiver is the picture tube. The tube utilized for the above mentioned function in this chassis is specially constructed to limit X-radiation emissions.
For continued X-radiation protection, the replacement tube must be the same type as the original, Hitachi approved type.
When troubleshooting and making test measurements in a receiver with a problem of excessive high voltage, avoid being unnecessarily close to the picture tube and the high voltage component.
Do not operate the chassis to locate the cause of exce

h. **X-radiation Shield –**

1. This receiver is provided with X-ray shield plates for protection against X-radiation. Do not remove X-ray shield plates A, B, C, or D shown in Fig. 1 unnecessarily, when troubleshooting and/or making test measurements.
2. To prevent X-radiation, after replacement of picture tube and lens, confirm these components to be fixed correctly to bracket and cabinet, and not to be taken off easily.

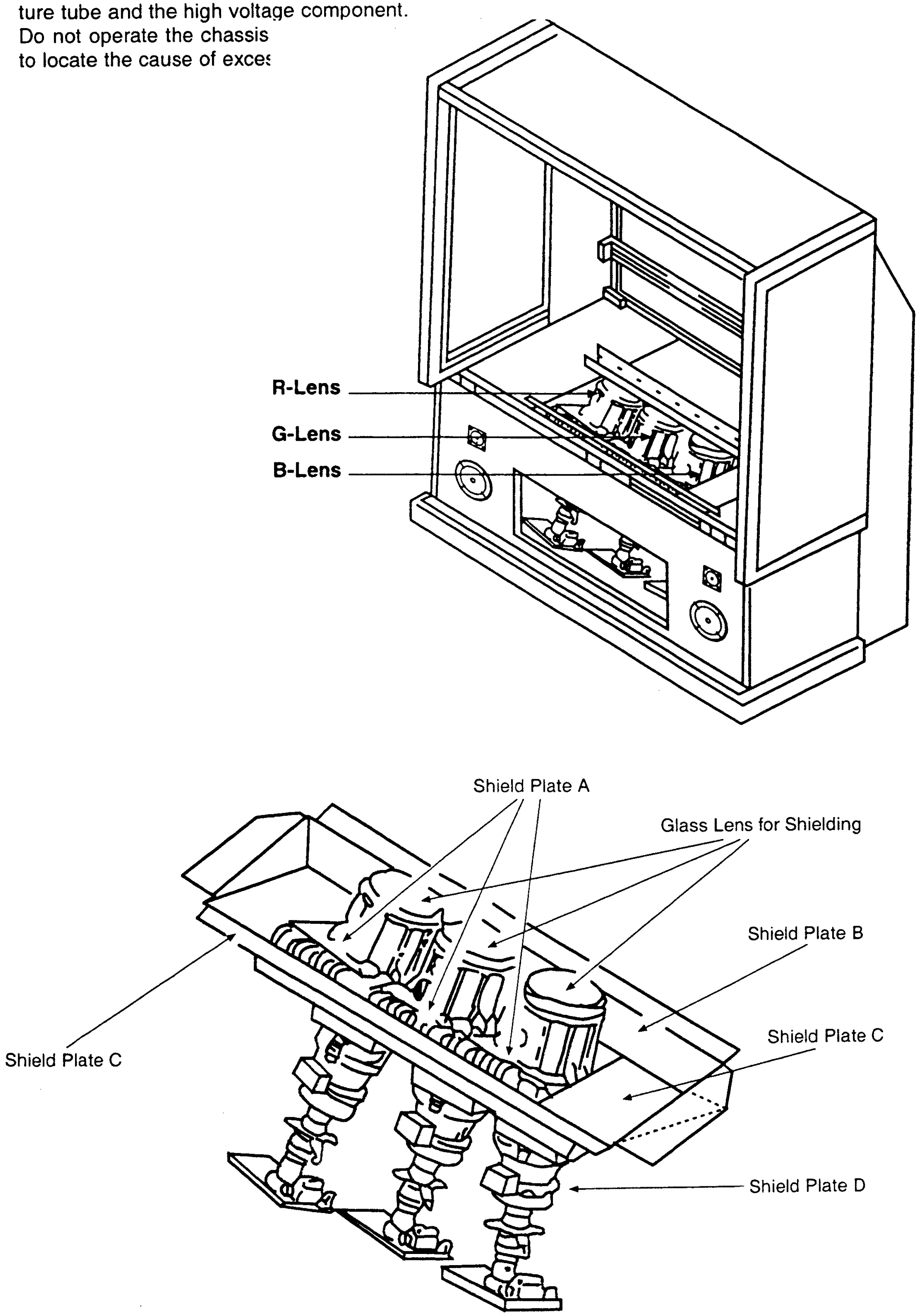


Fig. 1. Detailing X-radiation Shield

2. Read and comply with all caution and safety-related notes on or inside the receiver cabinet, on the receiver chassis, or on the picture tube.

3. **Design Alteration Warning** – Do not alter or add to the mechanical or electrical design of this TV receiver. Design alterations and additions including but not limited to circuit modifications and the addition of items such as auxiliary audio and/or video output connectors, might alter the safety characteristics of this receiver and create a hazard to the user. Any design alterations or additions may void the manufacturer's warranty and may make you, the servicer, responsible for personal injury or property damage resulting therefrom.

4. **Picture Tube Implosion Protection Warning** – The picture tube in this receiver employs integral implosion protection. For continued implosion protection, replace the picture tube only with one of the same type number. Do not remove, install, or otherwise handle the picture tube in any manner without first putting on shatterproof goggles equipped with side shields. People not so equipped must be kept safely away while picture tubes are handled. Keep the picture tube away from your body. Do not handle the picture tube by its neck.

5. **Hot Chassis Warning** – **a.** Some TV receiver chassis are electrically connected directly to one conductor of the AC power cord and may be safely serviced without an isolation transformer only if the AC power plug is inserted so that the chassis is connected to the ground side of the AC power source. Confirm that the AC power plug is inserted correctly with an AC voltmeter by measuring between the chassis and a known earth ground. If a voltage reading in excess of 1.0V is obtained, remove and reinsert the AC power plug in the opposite polarity and again measure the voltage potential between the chassis and a known earth ground. **b.** Some TV receiver chassis normally have 85V AC (RMS) between chassis and earth ground regardless of the AC plug polarity. These chassis can be safely serviced only with an isolation transformer inserted in the power line between the receiver and the AC power source, for both personnel and test equipment protection. c. Some TV receiver chassis have a secondary ground system in addition to the main chassis ground. This secondary ground system is not isolated from the AC power line. The two ground systems are electrically separated by insulating material that must not be defeated or altered.

6. Observe original lead dress. Take extra care to assure correct lead dress in the following areas: **a.** near sharp edges, **b.** near thermally hot parts – be sure that leads and components do not touch thermally hot parts, **c.** the AC supply, **d.** high voltage and **e.** antenna wiring. Always inspect in all areas for pinched, out-of-plate, or frayed wiring. Do not change spacing between components and the printed circuit board. Check AC power cord for damage.

7. Components, parts, and/or wiring that appear to have overheated or are otherwise damaged should be replaced with components, parts, or wiring that meet original specifications. Additionally, determine the cause of overheating and/or damage and, if necessary, take corrective action to remove any potential safety hazard.

8. **PRODUCT SAFETY NOTICE** – Many TV electrical and mechanical parts have special safety-related characteristics some of which are often not evident from visual inspection, nor can the protection they give necessarily be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified in Hitachi service data by shading on schematics and by a ⚠ in the parts list. Use of substitute replacement that does not have the same safety characteristics as the recommended replacement part in Hitachi service data parts list might create shock, fire, and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate. For the latest information, always consult the appropriate current Hitachi service literature. A subscription to, or additional copies of service literature may be obtained at a nominal charge from Hitachi.

SERVICING PRECAUTIONS

CAUTION: Before servicing instruments covered by this service data and its supplements and addenda, read and follow the SAFETY PRECAUTIONS on page 3 of this publication.

NOTE: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions on page 3 of this publication, always follow the safety precautions. Remember: Safety First.

General Servicing Guidelines

1. Always unplug the instrument AC power cord from the AC power source before:
   a. Removing or reinstalling any component, circuit board, module, or any other instrument assembly.

   b. Disconnecting or reconnecting any instrument electrical plug or other electrical connection.

   c. Connecting a test substitute in parallel with an electrolytic capacitor in the instrument.
   CAUTION: A wrong part substitution or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.

   d. Discharging the picture tube anode.

2. Test high voltage only by measuring it with an appropriate high voltage meter or other voltage measuring device (DVM, FETVOM, etc.) equipped with a suitable high voltage probe. Do not test high voltage by "drawing an arc." The H.V. Distribution Box has an internal 400MΩ resistor (bleeder resistor) connected from the high voltage to ground. After power is removed from the instrument the high voltage will discharge through the high voltage bleeder resistor. If the tubes have high voltage after power is removed, then the bleeder resistor is defective or the bleeder ground is disconnected.

3. Discharge the picture tube's anode at any of the R, G, or B outputs on the H.V. Distribution Box only by (a) first connecting one end of an insulated clip lead to the degaussing or kine aquadag grounding system shield at the point where the picture tube socket ground lead is connected, and then (b) touch the other end of the insulated clip lead to the picture tube high voltage distribution box R, G, or B output, using an insulated handle to avoid personal contact with high voltage.

4. Do not spray chemicals on or near this instrument or any of its assemblies.

5. Unless specified otherwise in these service data, clean electrical contracts by applying the following mixture to the contacts with a pipe cleaner, cotton-tipped stick or comparable nonabrasive applicator: 10% (by volume) Acetone and 90% (by volume) isopropyl alcohol (90%-99% strength).
   CAUTION: This is a flammable mixture. Unless specified otherwise in these service data, lubrication of contacts is not required.

6. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service data might be equipped.

7. Do not apply AC power to this instrument and/or any of its electrical assemblies unless all solid-state device heat-sinks are correctly installed.

8. Always connect the test instrument ground lead to the appropriate instrument chassis ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

9. Use with this instrument only the test fixtures specified in this service data.
   CAUTION: Do not connect the test fixture ground strap to any heatsink in this instrument.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.

3. Use only a grounded-tip soldering iron to solder or desolder ES devices.

4. Use only can anti-static type solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES device.

5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.

6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.
   CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

General Soldering Guidelines

1. Use a grounded-tip, low-wattage soldering iron and appropriate tip size and shape that will maintain tip temperature within the range 500°F to 600°F.

2. Use an appropriate gauge of resin-core solder composed of 60 parts tin/40 parts lead.

3. Keep the soldering iron tip clean and well-tinned.

4. Thoroughly clean the surfaces to be soldered. Use a small wire-bristle (0.5 inch or 1.25 cm) brush with a metal handle. Do not use freon-propelled spray-on cleaners.

5. Use the following desoldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

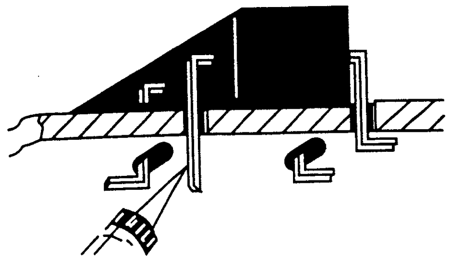
   b. Heat the component lead until the solder melts. Quickly draw away the melted solder with an anti-static, suction-type solder removal device or with solder braid.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil.

6. Use the following soldering technique.
   a. Allow the soldering iron tip to reach normal temperature (500°F to 600°F).

   b. First, hold the soldering iron tip and solder strand against the component lead until the solder melts.

   c. Quickly move the soldering iron tip to the junction of the component lead and the printed circuit foil, and hold it there only until the solder flows onto and around both the component lead and the foil.
   CAUTION: Work quickly to avoid overheating the circuit board printed foil or components.

   d. Closely inspect the solder area and remove any excess or splashed solder with a small wire-bristle brush.



Use Solding Iron to Pry Leads

IC Removal/Replacement

Some Hitachi unitized chassis circuit boards have slotted holes (oblong) through which the IC leads are inserted and then bent flat against the circuit foil. When holes are the slotted type, the following technique should be used to remove and replace the IC. When working with boards using the familiar round hole, use the standard technique as outlined in paragraphs 5 and 6 above.

Removal

1. Desolder and straighten each IC lead in one operation by gently prying up on the lead with the soldering iron tip as the solder melts.

2. Draw away the melted solder with an anti-static suction-type solder removal device (or with solder braid) before removing the IC.

Replacement

1. Carefully insert the replacement IC in the circuit board.

2. Carefully bend each IC lead against the circuit foil pad and solder it.

3. Clean the soldered areas with a small wire-bristle brush. (It is not necessary to reapply acrylic coating to areas.)

"Small-signal" Discrete Transistor Removal/Replacement

1. Remove the defective transistor by clipping its leads as close as possible to the component body.

2. Bend into a "U" shape the end of each of three leads remaining on the circuit board.

3. Bend into a "U" shape the replacement transistor leads.

4. Connect to replacement transistor leads to the corresponding leads extending from the circuit board and crimp the "U" with long nose pliers to insure metal to metal contact, then solder each connection.

Power Output Transistor Devices Removal/Replacements

1. Heat and remove all solder from around the transistor leads.

2. Remove the heatsink mounting screw (if so equipped).

3. Carefully remove the transistor from the circuit board.

4. Insert new transistor in circuit board.

5. Solder each transistor lead, and clip off excess lead.

6. Replace heatsink.

Diode Removal/Replacement

1. Remove defective diode by clipping its leads as close as possible to diode body.

2. Bend the two remaining leads perpendicularly to the circuit board.

3. Observing diode polarity, wrap each lead of the new diode around the corresponding lead on the circuit board.

4. Securely crimp each connection and solder it.

5. Inspect (on the circuit board copper side) the solder joints of the two "original leads". If they are not shiny, reheat them and, if necessary, apply additional solder.

Fuses and Conventional Resistor Removal/Replacement

1. Clip each fuse or resistor lead at top of circuit board hollow stake.
2. Securely crimp leads of replacement component around stake 1/8 inch from top.
3. Solder the connections.
   CAUTION: Maintain original spacing between the replaced component and adjacent components and the circuit board, to prevent excessive component temperatures.

Circuit Board Foil Repair

Excessive heat applied to the copper foil of any printed circuit board will weaken the adhesive that bonds the foil to the circuit board, causing the foil to separate from, or "lift-off," the board. The following guidelines and procedures should be followed whenever this condition is encountered.

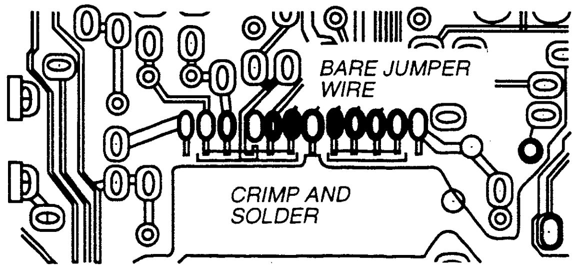
In Critical Copper Pattern Areas

High component/copper pattern density and/or special voltage/current characteristics make the spacing and integrity of copper pattern in some circuit board areas more critical than in others. The circuit foil in these areas is designated as Critical Copper Pattern. Because Critical Copper Pattern requires special soldering techniques to ensure the maintenance of reliability and safety standards, contact your Hitachi personnel.

At IC Connections

To repair defective copper pattern at IC connections, use the following procedure to install a jumper wire on the copper pattern side of the circuit board. (Use this technique only on IC connections.)

1. Carefully remove the damaged copper pattern with a sharp knife. (Remove only as much copper as absolutely necessary.)
2. Carefully scratch away the solder resist and acrylic coating (if used) from the end of the remaining copper pattern.

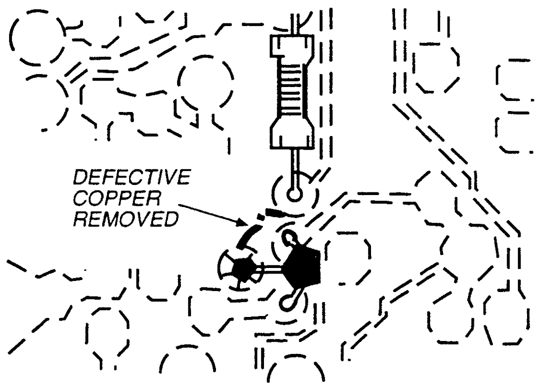


Install Jumper Wire and Solder

3. Bend a small "U" in one end of a small-gauge jumper wire and carefully crimp it around the IC pin. Solder the IC connection.
4. Route the jumper wire along the path of the cut-away copper pattern and let it overlap the previously scraped end of the good copper pattern. Solder the overlapped area, and clip off any excess jumper wire.

At Other Connections

Use the following technique to repair defective copper pattern at connections other than IC Pins. This technique involves the installation of a jumper wire on the component side of the circuit board.



Insulated Jumper Wire

1. Remove the defective copper pattern with a sharp knife. Remove at least 1/4 inch of copper, to ensure hazardous condition will not exist if the jumper wire opens.
2. Trace along the copper pattern from both wire sides of the pattern break and locate the nearest component directly connected to the affected copper pattern.
3. Connect insulated 20-gauge jumper wire from the nearest component on one side of the pattern break to the lead of the nearest component on the other side. Carefully crimp and solder the connections.
   CAUTION: Be sure the insulated jumper wire is dressed so that it does not touch components or sharp edges.

Frequency Synthesis (FS) Tuning Systems

1. Always unplug the instrument AC power cord before disconnecting or reconnecting FS tuning system cables and before removing or inserting FS tuning system modules.
2. The FS tuner must never be disconnected from the FS tuning control module while power is applied to the instrument.
3. When troubleshooting intermittent problems that might be caused by defective cable connection(s) to the FS tuning system, remove the instrument AC power as soon as the defective connector is found and finish confirming the bad connection with a continuity test. This procedure will reduce the probability of electrical overstress of the FS system semi-conductor components.

NOTE: ***These components are affixed with glue. Be careful not to break or damage any foil under the component or at the pins of the ICs when removing. Usually applying heat to the component for a short time while twisting with tweezers will break the component loose.***

Leadless Chip Components (surface mount)

Chip components must be replaced with identical chips due to critical foil track spacing. There are no holes in the board to mount standard transistors or diodes. Some chip capacitor or resistor board solder pads may have holes through the board, however the hole diameter limits standard resistor replacement to 1/8 watt. Standard capacitors may also be limited for the same reason. It is recommended that identical chip components be used. .

Chip resistors have a three digit numerical resistance code -1st and 2nd significant digits and a multiplier. Example: 162 = 1600 or 1.6KΩ resistor, 0 = 0Ω (jumper).

Chip capacitors generally do not have the value indicated on the capacitor. The color of the component indicates the general range of the capacitance.

Chip transistors are identified by a two letter code. The first letter indicates the type and the second letter, the grade of transistor.

Chip diodes have a two letter identification code as per the code chart and are a dual diode pack with either common anode or common cathode. Check the parts list for correct diode number.

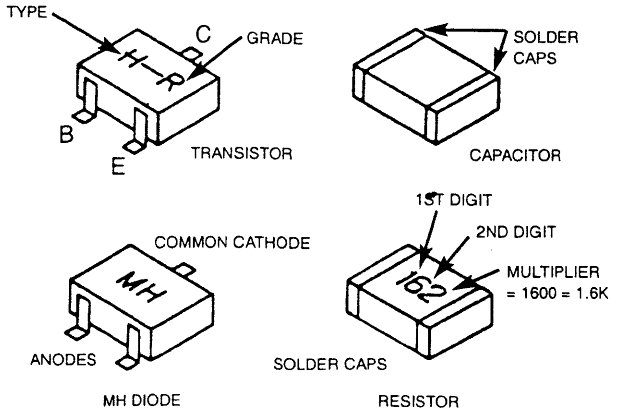
Component Removal

1. Use solder wick to remove solder from component end caps or terminals.
2. Without pulling up, carefully twist the component with tweezers to break the adhesive.
3. Do not reuse removed leadless or chip components since they are subject to stress fracture during removal .

Chip Component Installation

1. Put a small amount of solder on the board soldering pads.
2. Hold the chip component against the soldering pads with tweezers or with a miniature alligator clip and apply heat to the pad area with a 30 watt

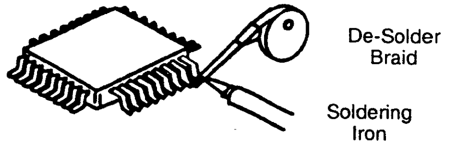
Chip Components



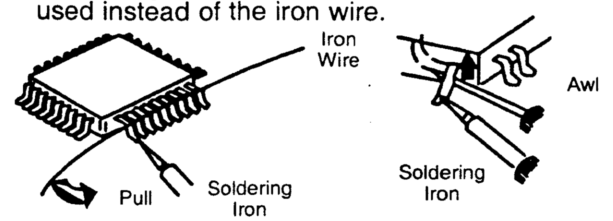
How to Replace Flat-IC —Required Tools—

- Soldering iron
- De-solder braids
- iron wire or small awl
- Magnifier

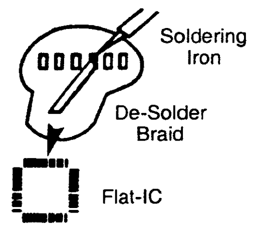
1. Remove the solder from all of the pins of a Flat-IC by using a de-solder braid.



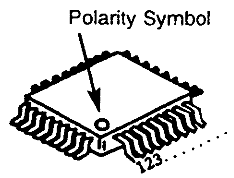
2. Put the iron wire under the pins of the Flat-IC and pull it in the direction indicated while heating the pins using a soldering iron. A small awl can be used instead of the iron wire.



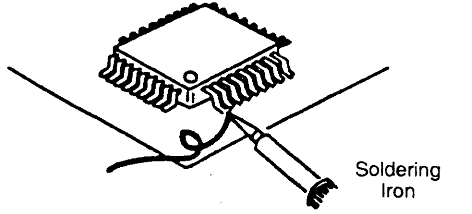
3. Remove the solder from all of the pads of the Flat-IC by using a de-solder braid.



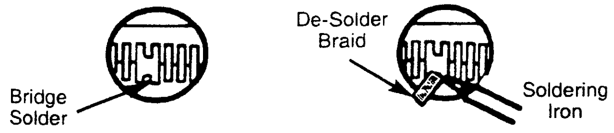
4. Position the new Flat-IC in place (apply the pins of the Flat-IC to the soldering pads where the pins need to be soldered). Properly determine the positions of the soldering pads and pins by correctly aligning the polarity symbol.



5. Solder all pins to the soldering pads using a fine tipped soldering iron.



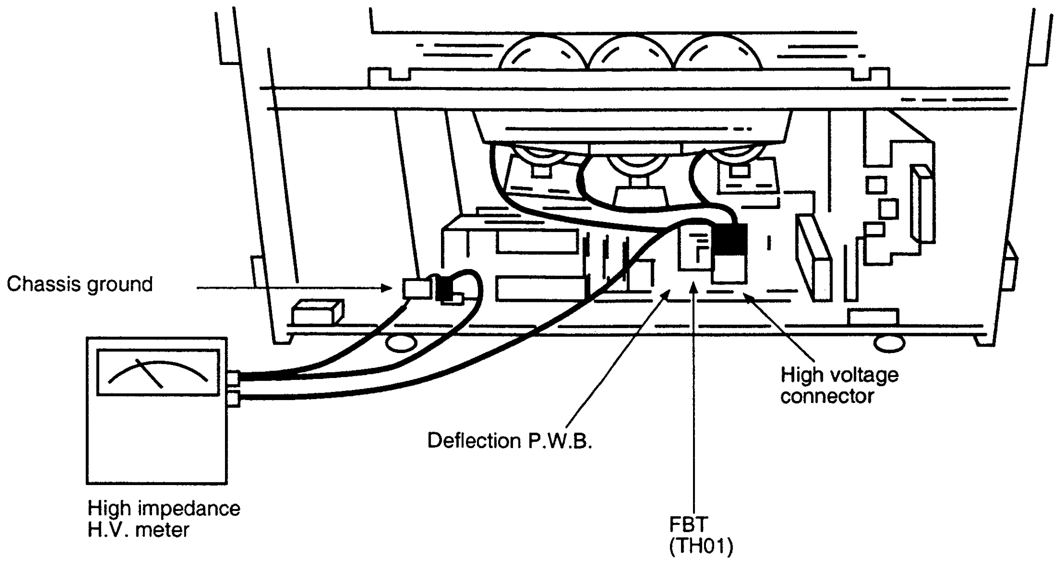
6. Check with a magnifier for solder bridge between the pins or for dry joint between pins and soldering pads. To remove a solder bridge, use a de-solder braid as shown in the figure below.

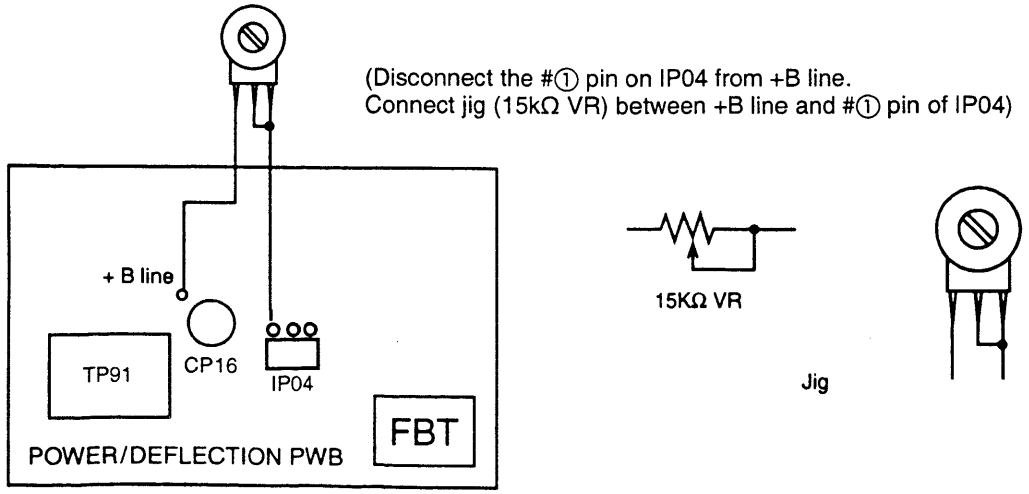


TECHNICAL CAUTIONS

High Voltage limiter circuit operation check.

1. Turn off TV and connect jig as shown in Figure 2. Adjust jig fully counter-clockwise for minimum resistance.
2. Set the AC input to 120V AC and turn on TV.
3. Confirm test pattern on CRT is a usable picture, then slowly adjust jig until the picture disappears and TV shuts down.
4. When the limiter circuit is operating properly, High Voltage will be less than 36.5 kV at 0.6mA when TV shuts down.
5. Turn off set immediately after checking circuit operation.
6. Unplug set for one minute to reset shutdown circuit. Remove jig and voltmeter.





(Disconnect the #① pin on IP04 from +B line.
Connect jig (15kΩ VR) between +B line and #① pin of IP04)

Fig. 2. Deflection/Power P.C.B.

SPECIFICATIONS

Model:	60SDX88B
Cathode-Ray Tube:	R=P16LFT00RFA G=P16LFT00HLA B=P16LFT00BMB
Power Input:	120 volts AC, 60 Hz
Power Consumption:	290 Watts - Maximum 245 Watts - Operating
Antenna Impedence:	75 Ohm Unbalanced VHF / UHF / CATV

Receiving Channel:

BAND	CH
VHF	2~13
UHF	14~69
EXT. Mid	(A-5)~(A-1), 4+
CATV Mid.	A~I
CATV Super	J~W
CATV Hyper	(W+1)~(W+28)

Intermediate Frequency:	Picture I-F Carrier 45.75 MHz Sound I-F Carrier 41.25 MHz Color Sub Carrier 42.17 MHz
Video Input:	1 Volt p-p, 75 Ohm 1 Volt p-p, 75 Ohm (Y) 0.7 Volt p-p, 75 Ohm, (Cb, Cr)
Video Output:	1 Volt p-p, 75 Ohm
Audio Input:	470 mVrms, 47 k Ohm
Stereo Audio Output:	470 mVrms, 1 k Ohm

Audio Output Power:

Front: 15 Watts per channel at 10% distortion, 8 Ohm impedence.
Max. output - 18 Watts.
Rear: 7.5 Watts per channel at 10% distortion, 8 Ohm impedence.
Max output - 10 Watts.
Center: 7.5 Watts per channel at 10% distortion, 8 Ohm impedence.
Max output - 10 Watts

Anode Voltage	31.5 kV (Zero Beam Current)
Brightness:	60SDX88B - 180 cd/m² (white screen)
Speakers:	2 Woofers - 5 inch (12 mm) round 2 Tweeters - 2 inch (5 mm) round 2 Center Speakers - 4 inch (10 mm) round

Dimension:

	60SDX88B
Height (in.)	60 7/16
Width (in.)	51 3/8
Depth (in.)	27 1/2
Weight (lbs.)	255

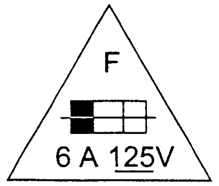
Circuit Board Assemblies:

C.P.T. (B) P.W.B.
C.P.T. (G) P.W.B.
C.P.T. (R) P.W.B.
Audio Out P.W.B.
2 H P.W.B.
Power Supply P.W.B.
Signal P.W.B.
Terminal P.W.B.
VM P.W.B.
Surround P.W.B.
Power/Deflection P.W.B.
Control P.W.B.
Control Sub P.W.B.
Sensor Distribution P.W.B.
Sub Deflection P.W.B.

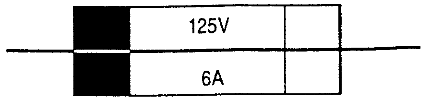
CIRCUIT PROTECTION

CAUTION: Below is an EXAMPLE only. See Replacement Parts List for details. The following symbol near the fuse indicates fast operation fuse (to be replaced). Fuse ratings appear within the symbol.

Example:



"RISK OF FIRE - REPLACE FUSE AS MARKED"

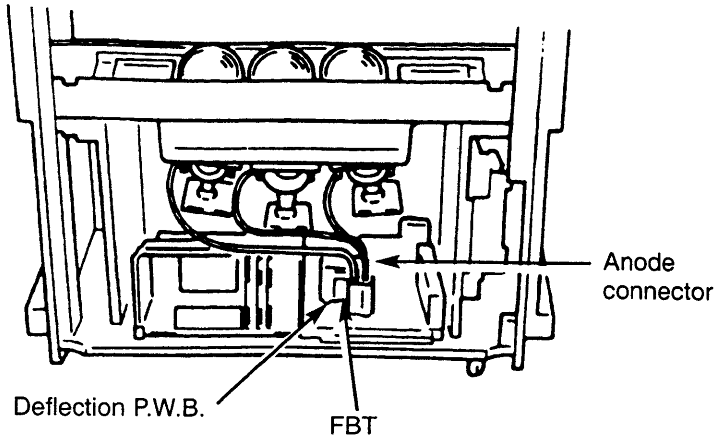


F901

The rating of fuse F901 is 6.0A - 125V.
Replace with the same type fuse for continued protection against fire.

CAUTIONS WHEN CONNECTING / DISCONNECTING THE HV CONNECTOR

Perform the following when the HV connector (anode connector) is removed or inserted for CPT replacement, etc.


Anode connector
Deflection P.W.B.
FBT

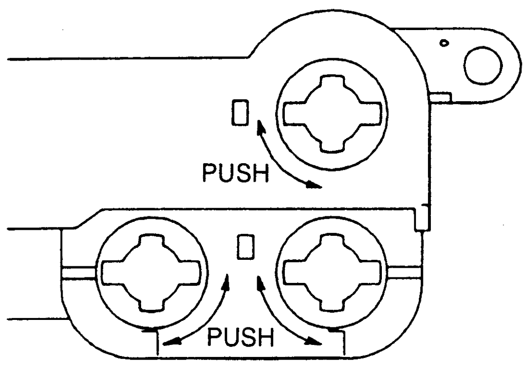


Fig. A

During Removal

1. Roll out silicon cover from FBT's contact area slowly.
2. While turning the connector about 90 degrees following the arrow (0 position), push the connector slightly towards the case. (Fig. A)
3. Remove the connector slowly by pulling it away from the case.

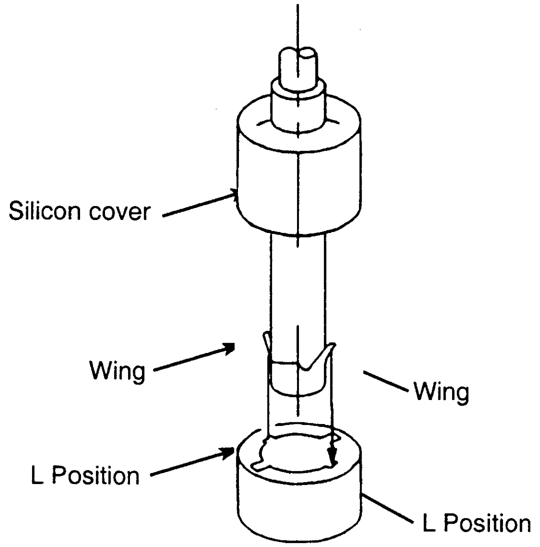

Silicon cover
Wing
Wing
L Position
L Position

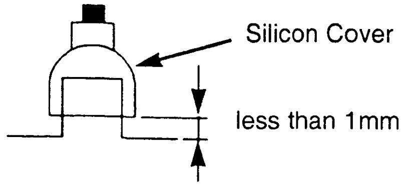
Fig. B

During Insertion

1. Please refer to direction for insertion as shown in Fig. B (L position). Insert connector until "CLICK" sound is heard.
2. Make sure the connector is pressed right in, so that it has a good contact with the spring.
3. Confirm the contact by pulling the connector slightly. (Don't pull hard because it may damage the connector).
4. Cover the high voltage output by carefully pushing silicon cover onto it. (Don't turn the connector).

(REMARK)

1. Make sure the silicon cover is covering the high voltage output.


Silicon Cover
less than 1mm

GENERAL INFORMATION

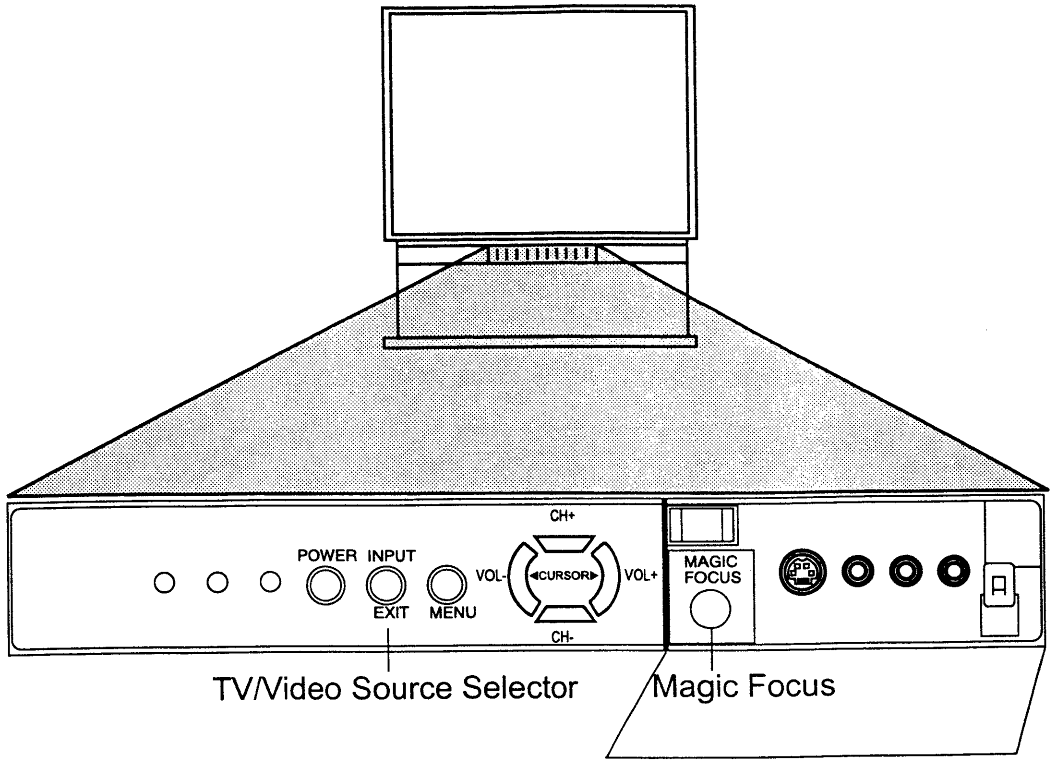

CH+
POWER
INPUT
EXIT
MENU
VOL-
CURSOR
VOL+
CH-
MAGIC FOCUS
TV/Video Source Selector
Magic Focus

Fig. 3. Control Panel

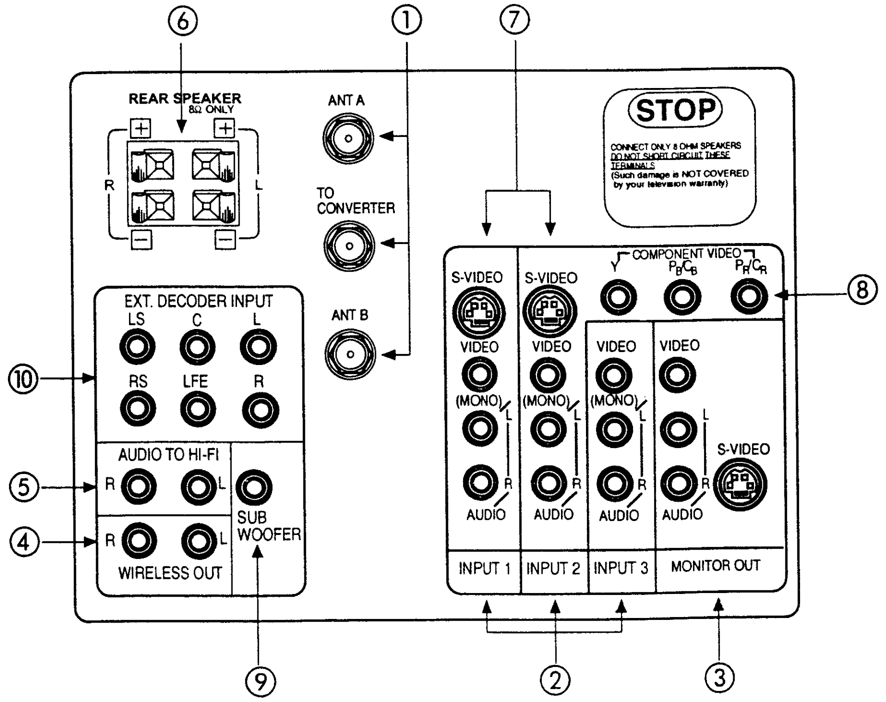

⑥
①
⑦
REAR SPEAKER
8Ω ONLY
R
L
ANT A
TO CONVERTER
ANT B
STOP
CONNECT ONLY 8 OHM SPEAKERS
DO NOT SHORT CIRCUIT THESE TERMINALS
(Such damage is NOT COVERED by your television warranty)
EXT. DECODER INPUT
LS
C
L
RS
LFE
R
AUDIO TO HI-FI
SUB WOOFER
WIRELESS OUT
S-VIDEO
S-VIDEO
COMPONENT VIDEO
Y
PB/CB
PR/CR
VIDEO
(MONO)
AUDIO
INPUT 1
INPUT 2
INPUT 3
MONITOR OUT
⑧
⑩
⑤
④
⑨
②
③

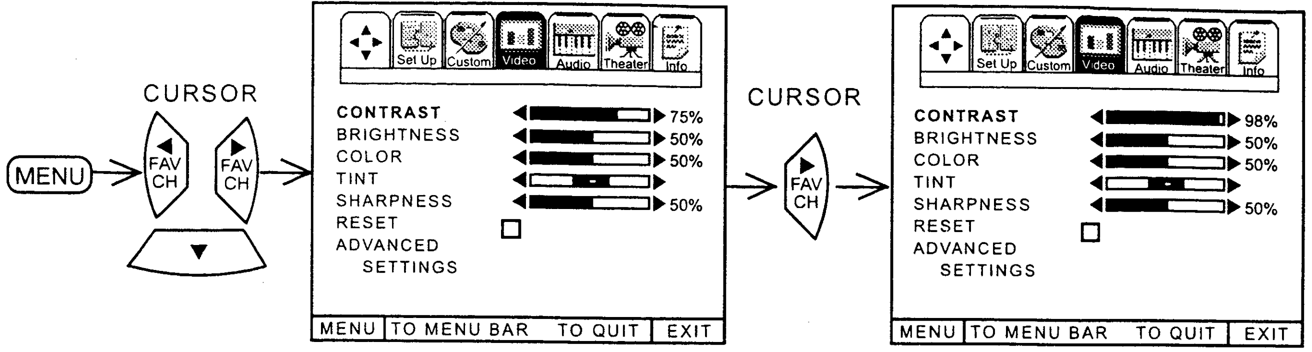
Fig. 4. Rear Connections Panel

- ① **Antenna Input/Output**
- ② **Inputs 1, 2, 3**
- ③ **Monitor Out**
- ④ **Variable Transmitter Audio Output**
- ⑤ **HI-FI Output**
- ⑥ **Rear Speaker Output Terminals**
- ⑦ **S-Video Inputs 1 and 2**
- ⑧ **Component Input**
- ⑨ **Sub Woofer Output**
- ⑩ **External Decoder Input**

CUSTOMIZED PICTURE AND SOUND ADJUSTMENTS

VIDEO

Select VIDEO to adjust picture settings and improve picture quality.

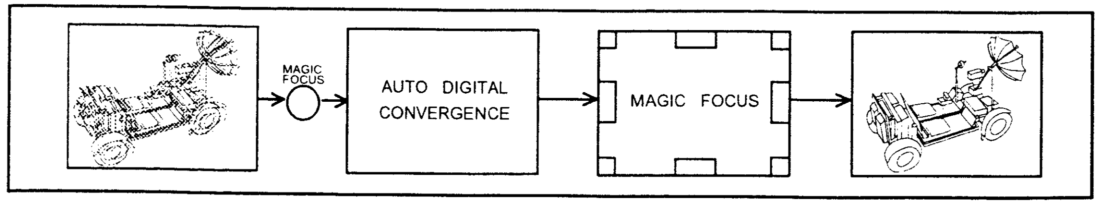

CURSOR
MENU
FAV CH
FAV CH
Set Up
Custom
Video
Audio
Theater
Info
CONTRAST 75%
BRIGHTNESS 50%
COLOR 50%
TINT
SHARPNESS 50%
RESET
ADVANCED SETTINGS
MENU TO MENU BAR TO QUIT EXIT
CURSOR
FAV CH
CONTRAST 98%
BRIGHTNESS 50%
COLOR 50%
TINT
SHARPNESS 50%
RESET
ADVANCED SETTINGS
MENU TO MENU BAR TO QUIT EXIT

Use the CURSOR ▲ or ▼ buttons to highlight the function to be adjusted.
Press the CURSOR ◀ or ▶ buttons to adjust the function.
Press EXIT to quit menu.

CONTRAST	Use this function to change the contrast between black and white levels in the picture. This adjustment will only affect the picture when ADVANCED SETTINGS ULTRA AI is OFF.
BRIGHTNESS	Use this function to adjust overall picture brightness.
COLOR	Use this function to adjust the level of color in the picture.
TINT	Use this function to adjust flesh tones so they appear natural. (See notes below.)
SHARPNESS	Use this function to adjust the amount of fine detail in the picture.
RESET	When RESET is selected, press CURSOR ▶ to return video adjustments to factory preset conditions.

NOTE: 1. It may be necessary to adjust TINT to obtain optimum picture quality when using the COMPONENT: Y-C_BC_R/Y-P_BP_R Input 2 jacks.
2. If you are tuned to VIDEO:2 and the TINT and COLOR are abnormal, first check to make sure that COMPONENT SET-COLOR SYSTEM is set properly.

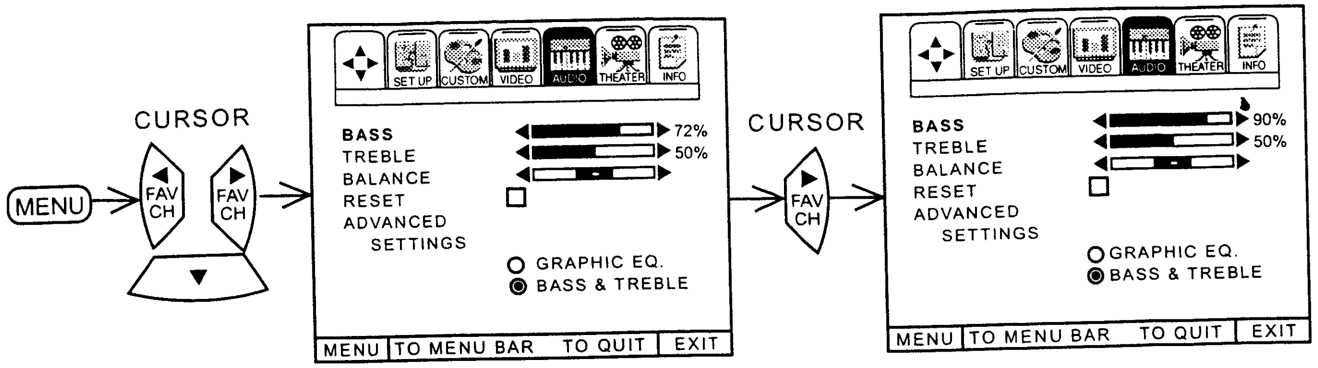
Press the front panel MAGIC FOCUS button momentarily for auto setup.


MAGIC FOCUS
AUTO DIGITAL CONVERGENCE
MAGIC FOCUS

To adjust manually, press and hold the MAGIC FOCUS button until CENTER MODE or STATIC MODE is displayed. Press EXIT on the remote to select red or blue. Green is stationary. Use the cursor buttons to adjust. Center mode only adjusts the center section. Static mode adjusts the entire screen. **Note:** This new data is in RAM memory only and will be lost if the MAGIC FOCUS button is pressed again.

AUDIO

Select AUDIO SETTINGS to adjust the TV to your preference and to improve the sound quality.


CURSOR
MENU
FAV CH
FAV CH
SET UP
CUSTOM
VIDEO
AUDIO
THEATER
INFO
BASS 72%
TREBLE 50%
BALANCE
RESET
ADVANCED SETTINGS
○ GRAPHIC EQ.
● BASS & TREBLE
MENU TO MENU BAR TO QUIT EXIT
CURSOR
FAV CH
BASS 90%
TREBLE 50%
BALANCE
RESET
ADVANCED SETTINGS
○ GRAPHIC EQ.
● BASS & TREBLE
MENU TO MENU BAR TO QUIT EXIT

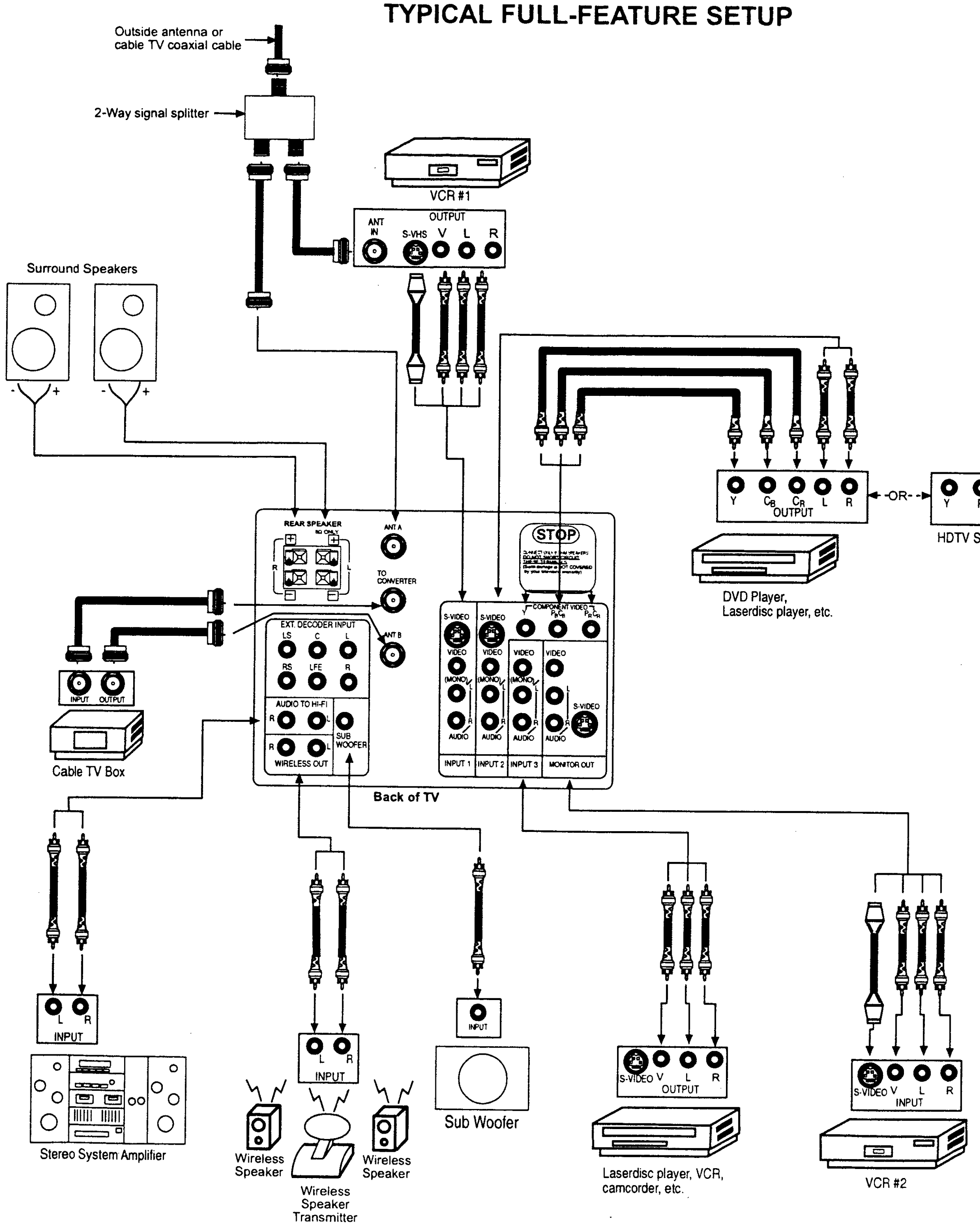
Use CURSOR ▲ or ▼ to highlight the function to be adjusted.
Press CURSOR ◀ or ▶ to adjust the function.
Press EXIT to quit menu.

BASS	This function controls the low frequency audio to all speakers.
TREBLE	This function controls the high frequency audio to all speakers.
BALANCE	This function will control the left to right balance of the TV internal speakers, the AUDIO TO HI FI output, and WIRELESS OUT output.
RESET	When RESET is selected, press CURSOR ▶ to return audio adjustments to factory preset conditions.

NOTE: If BASS or TREBLE are adjusted, the GRAPHIC EQUALIZER will automatically be disabled. The BALANCE function is disabled when SURROUND-DOLBY PRO LOGIC, SURROUND-DOLBY 3 STEREO, or SURROUND-EXT DECODER are selected.

REAR PANEL JACKS

TYPICAL FULL-FEATURE SETUP

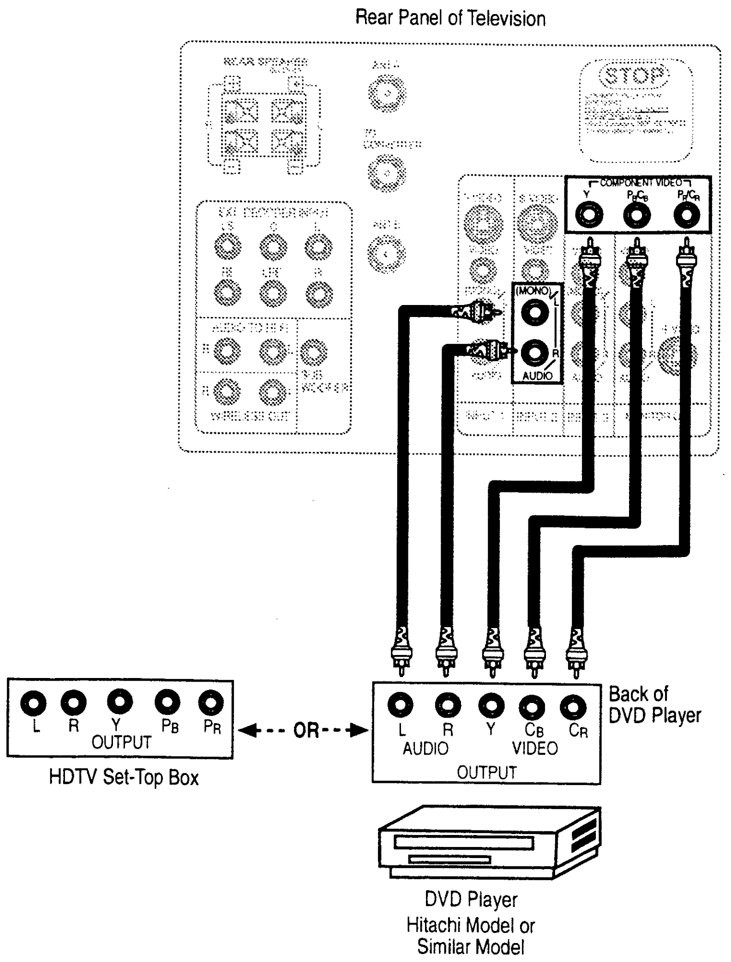

Outside antenna or cable TV coaxial cable
2-Way signal splitter
VCR #1
ANT IN
OUTPUT
S-VHS V L R
Surround Speakers
Y CB CR L R OUTPUT
-OR-
Y PB PR L R OUTPUT
HDTV Set-Top Box
DVD Player, Laserdisc player, etc.
REAR SPEAKER
ANT A
TO CONVERTER
ANT B
STOP
EXT DECODER INPUT
LS C L
RS LFE R
AUDIO TO HI-FI
SUB WOOFER
WIRELESS OUT
S-VIDEO
VIDEO
(MONO)
AUDIO
COMPONENT VIDEO
INPUT 1 INPUT 2 INPUT 3 MONITOR OUT
INPUT OUTPUT
Cable TV Box
Back of TV
L R INPUT
Stereo System Amplifier
L R INPUT
Wireless Speaker
Wireless Speaker
Wireless Speaker Transmitter
INPUT
Sub Woofer
S-VIDEO V L R OUTPUT
Laserdisc player, VCR, camcorder, etc.
S-VIDEO V L R INPUT
VCR #2

NOTE: Connect only 1 component to each input jack.

CONNECTING EXTERNAL VIDEO SOURCES

CONNECTING A STEREO LASERDISC PLAYER OR DVD PLAYER TO INPUT 2 COMPONENT: Y-C_BC_R/Y-P_BP_R.

1. Connect the cable from the Y OUT of the Laserdisc or the DVD player to the INPUT 2 (Y) jack as shown on the TV set below.
2. Connect the cable from the C_B/P_B OUT or B-Y OUT of the Laserdisc or the DVD player to the INPUT 2 (C_B/P_B) jack, as shown on the TV set below.
3. Connect the cable from the C_R/P_R OUT or R-Y OUT of the Laserdisc or the DVD player to the INPUT 2 (C_R/P_R) jack, as shown on the TV set below.
4. Connect the cable from the AUDIO OUT R of the Laserdisc or DVD player to the INPUT 2 (AUDIO/R) jack.
5. Connect the cable from the AUDIO OUT L of the Laserdisc or DVD player to the INPUT 2 (AUDIO/L) jack.
6. Press the INPUT button until VIDEO:2 appears, to view the program from the Laserdisc or DVD player. The mode VIDEO:2 disappears automatically after approximately eight seconds.
7. Press the INPUT button to return to the previous channel.

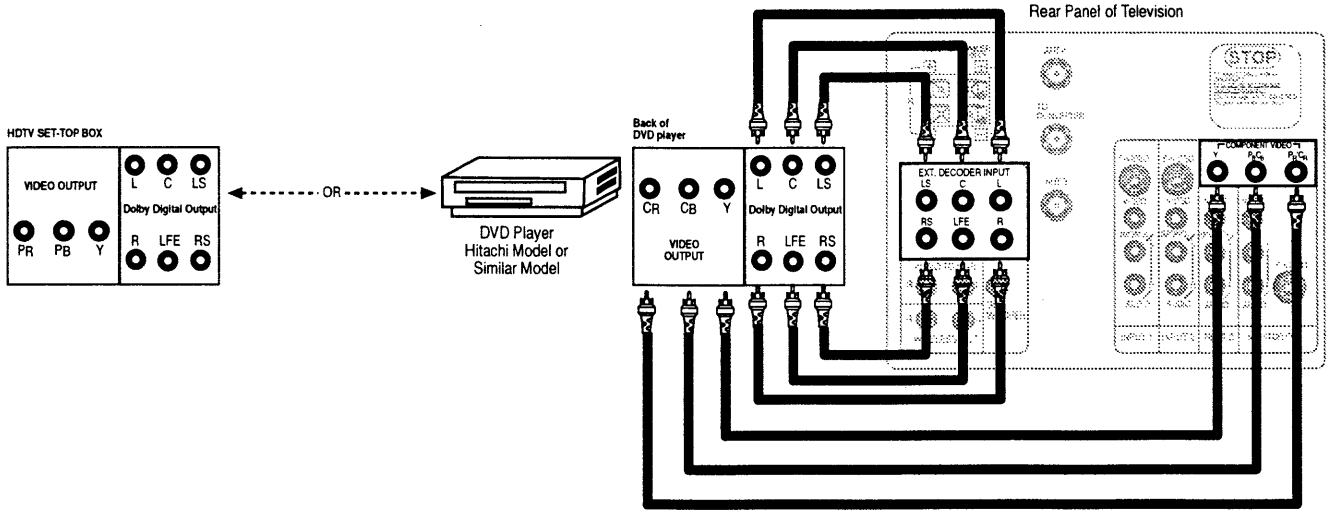

Rear Panel of Television
STOP
COMPONENT VIDEO
Y PB/CB PR/CR
(MONO)
AUDIO
L R Y PB PR OUTPUT
HDTV Set-Top Box
OR
L R Y CB CR
AUDIO VIDEO
OUTPUT
Back of DVD Player
DVD Player
Hitachi Model or Similar Model

NOTE: Completely insert the connection cord plugs when connecting to rear panel jacks. The picture that is played back will be abnormal if the connection is loose.

CONNECTING EXTERNAL VIDEO SOURCES

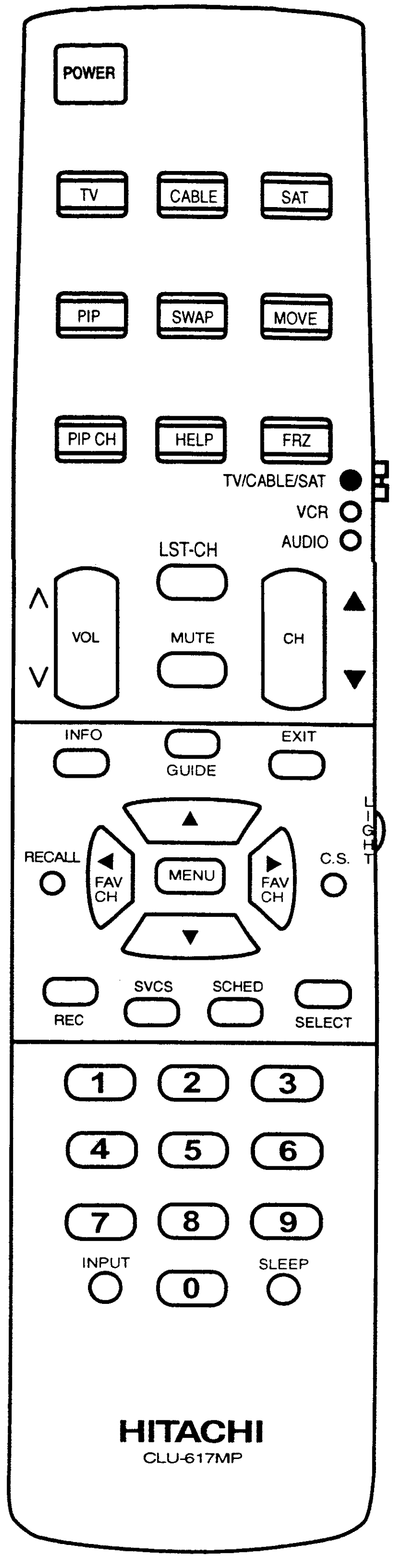
CONNECTING A DVD PLAYER WITH DOLBY DIGITAL TO INPUT 2 COMPONENT: Y-C_BC_R/Y-P_BP_R

1. Connect the cable from the Y OUT of the DVD player to the INPUT 2 (Y) jack as shown on the TV set below.
2. Connect the cable from the C_B/P_B OUT or B-Y OUT of the DVD player to the INPUT 2 (C_B/P_B) jack, as shown on the TV set below.
3. Connect the cable from the C_R/P_R OUT or R-Y OUT of the DVD player to the INPUT 2 (C_R/P_R) jack, as shown on the TV set below.
4. Connect the cable from the Dolby Digital Out (R) of the DVD player to the EXT. DECODER Input (R) jack.
5. Connect the cable from the Dolby Digital Out (C) of the DVD player to the EXT. DECODER Input (C) jack.
6. Connect the cable from the Dolby Digital Out (L) of the DVD player to the EXT. DECODER Input (L) jack.
7. Connect the cable from the Dolby Digital Out (RS) of the DVD player to the EXT. DECODER Input (RS) jack.
8. Connect the cable from the Dolby Digital Out (LS) of the DVD player to the EXT. DECODER Input (LS) jack.
9. Connect the cable from the Dolby Digital Out (LFE) of the DVD player to the EXT. DECODER Input (LFE) jack.


Rear Panel of Television
HDTV SET-TOP BOX
VIDEO OUTPUT
PR PB Y
L C LS
Dolby Digital Output
R LFE RS
OR
DVD Player
Hitachi Model or
Similar Model
Back of
DVD player
CR CB Y
VIDEO
OUTPUT
L C LS
Dolby Digital Output
R LFE RS
EXT. DECODER INPUT
LS C L
RS LFE R
COMPONENT VIDEO
Y P_BC_B P_RC_R
STOP

NOTE:	Completely insert the connection cord plugs when connecting to rear panel jacks. The picture that is played back will be abnormal if the connection is loose.

THE REMOTE TO CONTROL YOUR TV


POWER
TV
CABLE
SAT
PIP
SWAP
MOVE
PIP CH
HELP
FRZ
TV/CABLE/SAT
VCR
AUDIO
LST-CH
VOL
MUTE
CH
INFO
GUIDE
EXIT
RECALL
FAV CH
MENU
FAV CH
C.S.
LIGHT
REC
SVCS
SCHED
SELECT
1
2
3
4
5
6
7
8
9
INPUT
0
SLEEP
HITACHI
CLU-617MP

Shown above is the remote control CLU-617MP. This is identical to the CLU-612MP, except the label 'SAT' is replaced by 'DSS'. Operation is identical for these remote controls.

FEATURE INFORMATION

As the digital era dawns, Hitachi has models that provide the best possible images today...and tomorrow. Our HDTV Ready SDX model incorporates new Flex Converter technology to display a high quality 480 P (progressive scanning) image; this same circuitry enables it to accept a full 1080 I HDTV signal from a digital set-top box now or in the future.

FLEX CONVERTER TECHNOLOGY
With current analog broadcasts, there is just one level of picture quality. In the new age of digital TV, there will be several levels. The highest, called HDTV, can be as high as 1080 I.The standard level, SDTV, can be 480 P or 480 I. Hitachi has developed the Flex Converter, advance circuitry that allows your UltraVision SDX series television to produce true 1080 I HDTV resolution with an HDTV set-top box, it also converts analog 480 I signals to the higher-quality 480 P signals with no scan lines or flicker. The SDX needs a set-top box to receive any Digital Signal.

COMPONENT VIDEO
A component Video input accepts separate blue, red & B/W signals from a high resolution digital source as DVD or digital set-top box to provide a higher resolution picture.

3DYC (DIGITAL 3DYC COMB FILTER)
The Digital 3DYC Comb Filter analyzes three lines of information from a single video frame as well as lines from adjacent frames. This technology eliminates the flickering that a detailed pattern or scene would normally cause, for the cleanest, neatest picture possible.

PROGRESSIVE SCANNING
A standard TV uses Interlaced Scanning where each frame of video is broken into two fields, each providing alternating scan lines. This can leave noticeable scan lines and cause flickering. With Progressive Scanning, complete frames are displayed for a smoother picture with no scan lines and no flicker. This allows you to get the optimal picture quality from today's high resolution digital sources such as DVD or a digital set-top box.

SERVICE ADJUSTMENTS

1. ASSEMBLED P.W.B ADJUSTMENT **22**
- 1-1. Memory Initialization (NTSC, SDTV, AND HDTV) 22
- 1-2. Comb Filter Operation Check 23
- 1-3. Surround Check 23
- 1-4. High Voltage Adjustment 25
- 1-5. Horizontal Drive Frequency Adjustment (NTSC and HDTV) 25

2. FINAL ASSEMBLY ADJUSTMENT (Adjustment should be according to below order) **25**
- 2-1. Cut Off 25
- 2-2. DCU Phase Data Setting (Progressive and HD mode) 25
- 2-3. Raster Tilt (Deflection Yoke) 26
- 2-4. Beam Alignment 26
- 2-5. Raster Position 27
- 2-6. Horizontal Size (Progressive and HD mode) 27
- 2-7. Vertical Size (Progressive and HD mode) 28
- 2-8. Trapezoid (Progressive and HD mode) 28
- 2-9. Side Pin (Progressive and HD mode) 28
- 2-10. Beam Form 29
- 2-11. Lens Focus 29
- 2-12. Static Focus 30
- 2-13. Digital Convergence (Progressive and HD mode) 30
  - 2-13-1. Raster Position 31
  - 2-13-2. Convergence Point 31
  - 2-13-3. Digital Convergence Remote Control 32
- 2-14. Blue Defocus 32
- 2-15. White Balance 32
- 2-16. Sub Brightness 33
- 2-17. Horizontal and Vertical Position (Progressive and HD mode) 33

3. ADJUSTMENT POINT **35**
- 3-1. CRT (R)(G)(B), Cabinet Locations 35
- 3-2. Main Chassis (Signal P.W.B.) 36
- 3-3. Main Chassis (Power/Deflection P.W.B.) 37
- 3-4. Power Supply P.W.B. 38
- 3-5. CPT (R)(G)(B), Focus Pack, Control P.W.B. 39

1. ASSEMBLED P.W.B. ADJUSTMENT

1.1 Memory Initialization

Adjustment procedure

(1) Press INPUT key on Control Panel and then Power On to access I²C adjustment mode.

(2) Receive signal on main picture. (NTSC, SDTV, or HDTV).

Some menu pages have I²C adjustments for SDTV and HDTV. The set will automatically allow you to set these items only when a SDTV or HDTV signal is input to the COMPONENT jacks on the back of the TV. See table below.

	SIGNAL	ASPECT	fH	COLOR
HDTV	1080I	16:9	33.75kHz	Y Pb Pr
SDTV	480P	4:3	31.5 kHz	Y Cb Cr
NTSC	480I	4:3	15.75kHz	Y Cb Cr

(3) Check the OSD according to table below, using ▲▼ buttons on Remote Control.

*: Adjustable Data

Others: Fixed data (be careful not to change)

(4) Press MENU key to exit I²C ADJUST mode.

NOTE: (1) If there is a different value than shown in table above, for fixed data, adjust it using ◀▶ buttons (only in this case).

(2) When exchanging microprocessor and TV is turned on for first time, it requires initialization of Memory Initial on Page 1 of I²C adjustment menu page.

(3) FIRST TIME TOUR can be turned off at first power ON by pressing MENU while FIRST TIME TOUR is running.

FACTORY ADJUSTMENT MODE

DEFLECTION RESET

MEMORY INITIAL

	315	3375
* H POSITION	3F	3F
V POSITION	3F	3F
* H SIZE	15	3F
* V SIZE	3F	3F

VIDEO/CHROMA RESET

* SERVICE

* SUB BRIGHT

CCD RESET

PINP

	RESET
I CLAMP	7
Q CLAMP	7
Y CLAMP	3D
H POSI	21
V POSI	0C

UPC 1885	315	3375
H FREQ	6	6
H SEN	1F	1F
* H F/V	F5	F0
H DUTY	F	F
* SIDE PIN	0F	0F
* TRAPESOID	1F	1F
VS LIN	F	F
VC LIN	F	F
VO SIZ	F	F

TA1276	NTSC	SDTV	HDTV
SHARP	3A	3A	3A
COLOR	4F	4F	45
TINT	4A	39	45
R-Y PH	2	2	0
R/B GA	1	2	3
G-Y PH	1	1	2
G/B GA	0	0	0
APACON	7	7	5

TA1276	
G DRV	3A
B DRV	31
R CUTOFF	7F
G CUTOFF	7F
B CUTOFF	7F
RGB BRT	50
RGB CONT	50
SUB CONT	16
VSM PH	3
VSM GA	0

TA1276	
WPSL	0
HI BRT	0
COLORγ	3
CLT	0
Y γ CUV	0
CDE	1
OS ACL	1
TX ACL	0
DC POINT	0
DC RATE	0
DC LIMIT	0

TA1276	
BSP	3
APL/BS	0
Y γ PNT	0
SHARP TRK	0
RGB γ	0
BLACK CORR	1
BLACK GAIN	0
BLACK DET	0
D ABL PNT	0
D ABL GAIN	7
ABL PNT	4
APL GAIN	4

FLEX CONT RESET

	NTSC	SDTV	HDTV
CORE H	0	0	1
CORE V	0	0	1
ENHANCE H	0	0	2
ENHANCE V	2	2	2
ENH SEL	1	1	1
LOCATE HD	1F	1F	1F
LOCATE VD	1F	1F	1F

FLEX CONT

Y/C DELAY	75
BBLK LEVEL	4
RBLK LEVEL	3

FLEX CONT (Continued)

MASK STR	7
MASK END	7
PLL MASK	1
MASK POL	1
PANEL BRT	5F

FLEX CONT

	NTSC	SDTV	HDTV
PLL H PH	7	7	7
MASK H	7F	7F	7F
MASK V	7F	7F	7F
VT POSI	7F	7F	7F
VB POSI	7F	7F	7F
HR POSI	7F	7F	7F
HL POSI	7F	7F	7F
V COMP	7	7	7
V IND POSI	7	7	7
PANEL T	7	7	7
PANEL B	7	7	7

3DYC	RESET
MN8280	
BACK PORCH	2
VPK LIMIT	0
COLOR FREQ	03
TC90A17	
PLL W	0
PLL R	0
TA1270	
TINT	3E
SUB CONT	0D
SUB COLOR	10

1.2 Comb filter operation check

Adjustment preparation

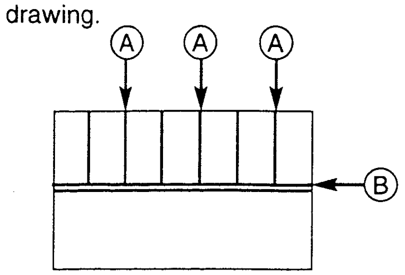
(1) Receive the color bar signal at the regular tuning point.

(2) Set the CONTRAST control to MAX and the other controls to center.

(3) Set the AI to OFF, and 3D Y/C to ON in Advanced Settings.

Adjustment procedure

(1) Check that between the color bars there are not line dots every second color bar as shown in the drawing.



Check Ⓐ and Ⓑ line dots.

	60SDX88B
Ⓐ	No Dots
Ⓑ	No Dots

1.3 Surround Check

Adjustment preparation

(1) Input the following audio signals to the audio input of the VIDEO INPUT terminals.

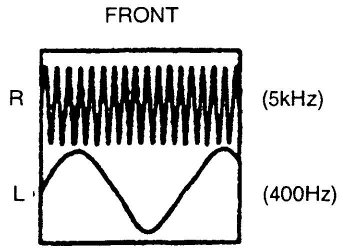
- When checking surround:
  ① L CH: 400 Hz sine wave, 475mVrms
  ② R CH: 5kHz sine wave, 475mVrms
- Set the AUDIO ADVANCED SETTING for INT. SPEAKERS ON,DYNAMIC BASS OFF, LOUDNESS OFF and PERFECT VOLUME OFF.
- Set the volume control of FRONT, CENTER, and REAR to around the center.
- Set the BASS, TREBLE and BALANCE to center.

Note: Front waveform: Front speaker output of the set.
Rear wavefrom: Rear speaker output of the set.
Center waveform: Center speaker output of the set.

1.3.1 Surround off check

Adjustment procedure

(1) Set to SURROUND: OFF and check that the waveform shown below is obtained (Input signal ① and ②).



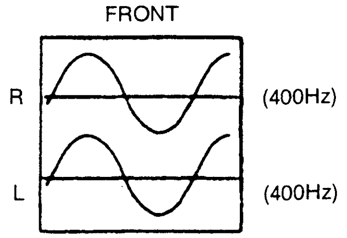
Note: The rear and center will have no output.

1.3.2 Surround off/monaural check

Adjustment procedure

Check that the following waveform is obtained. The amplitudes of 2 channels are equal.

(Input signal ① only-L mono input).



Note: Monaural check can be omitted. The rear and center have no output.

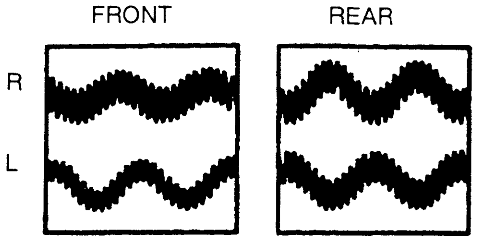
1.3.3 Matrix surround check

Adjustment procedure

(1) Set to SURROUND: MATRIX

- Check that the following waveforms are obtained. (Input signal ① and ②).

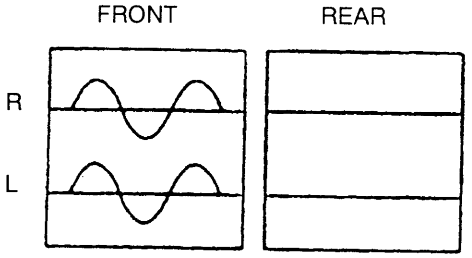
- Front: Check that the phases of R and L are different and 400Hz is superimposed on 5kHz. The amplitudes of R and L are different.
- Rear: Check that the phases of R and L are opposite and 400Hz is superimposed on 5kHz. The amplitudes of R and L are different.



Note: Center has no output.

1.3.4 Matrix surround/monaural check

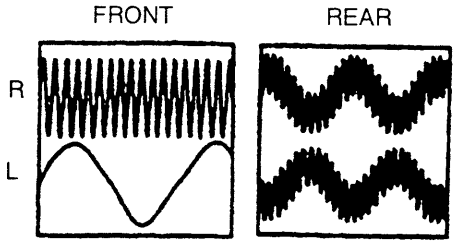
Adjustment procedure
- Check that the following waveforms are obtained. (Input signal ① only-L mono input).
- Front: R and L waveforms are almost equal.
- Rear: R and L waveforms are almost Zero.



Note: Center has no output.

1.3.5 Hall surround check

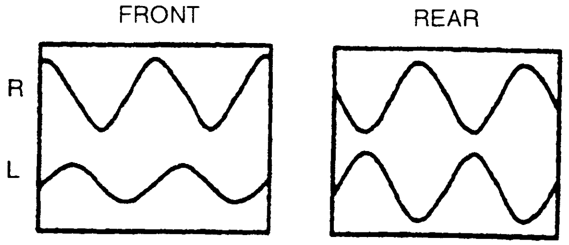
Adjustment procedure
(1) Set to SURROUND: HALL.
(Input signal ① and ②).
- Front: Check that the phases of R and L signals are different and 400 Hz is superimposed on 5kHz.
- Rear: Check that the R and L are opposite and 400Hz is superimposed on 5kHz. The R and L amplitudes are equal.



Note: Amplitude levels of front R and L are not even depending on P.W.B. Center has no output.

1.3.6 Hall surround/monaural check

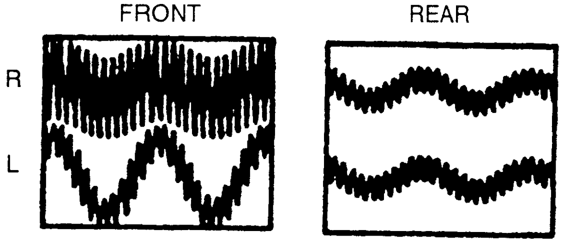
Adjustment procedure
- Check that the following waveforms are obtained. (Input signal ① only-L mono input).
- Front: The phases of R and L are different. The amplitudes are different.
- Rear: The phases of R and L are opposite.



Note: Center has no output.

1.3.7 Dolby surround check

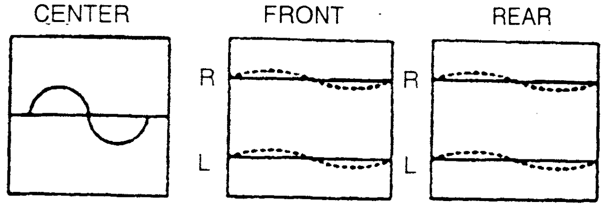
Adjustment procedure
(1) Set to SURROUND:DOLBY-PRO LOGIC-NORMAL
- Check that the following waveforms are obtained. (Input Signal ① and ②)
- Front: 400 Hz is superimposed on 5kHz.
- Rear: R and L are the same signal and 400Hz is superimposed on 5kHz.



Note: MODE: PRO LOGIC (NORMAL)

1.3.8 Dolby surround/monaural check

Adjustment procedure
(1) Set to SURROUND: DOLBY-PRO LOGIC-NORMAL
- Check that the following waveforms are obtained. (Input signal ① only-L mono input).
- Front: Almost no output from both R and L.
- Center: Same as the audio input signal.
- Rear: Almost no output from both R and L.

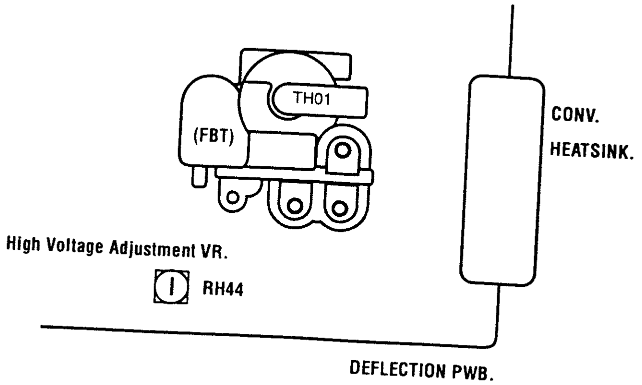


⚠ **Important:** High Voltage adjustment and Horizontal Drive Frequency adjustment should NOT be adjusted in field. These are adjusted at factory using precise loads and should NOT be readjusted.

1.4 High Voltage Adjustment (should NOT be readjusted in field).

Adjustment preparation
(1) Connect High Voltage meter between FBT High Voltage output. Connect GND of High Voltage meter to CPT GND or FBT GND.
(2) Check that High Voltage adjustment VR (RH44) is counter-clockwise fully (located behind FBT on DEFLECTION PWB).
(3) Receive color bar signal.
(4) VIDEO control should be reset.

Adjustment procedure
(1) Adjust High Voltage to following spec. by turning VR RH44 clockwise slowly. (This should never need adjustment).
ADJ. SPEC = 31. 5kV +/-0. 5kV
(2) After adjustment, fix VR RH44 by Silicone glue (KE40RTV).



1.5 Horizontal Drive Frequency Adjustment (should NOT be readjusted in field).

Adjustment preparation
(1) Connect frequency counter to PDD1 connector 7pin & PDD1 3, 4, 6 or 10pin (GND).
(2) VIDEO control should be reset.

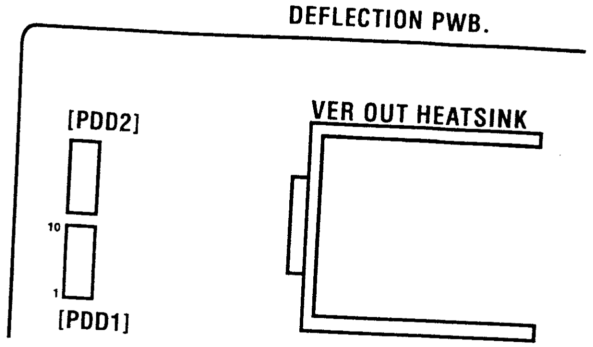
Adjustment procedure

NTSC MODE

(1) Receive NTSC color bar signal.
(2) Short between PDD 1 connector 7pin & PDD1 3, 4, 6 or 10pin (GND).
(3) Go to I²C ADJ. mode by holding INPUT key on front panel, then pressing POWER button.
(4) Choose [H. F. V.] item of I²C ADJ items.
(5) Adjust HOR. DRIVE frequency to follwing spec. by changing value of [H. F. V.] (This should never need adjustment).
ADJ. SPEC. = 31. 5kHz +/-0. 25kHz.

HD MODE

(1) Input HD (1080I fH=33. 75kHz) signal to INPUT 2 component terminal.
(2) Short between PDD 1 connector 7pin & PDD1 3, 4, 6 or 10pin (GND).
(3) Go to I²C ADJ. mode by holding INPUT key on front panel, then pressing POWER button.
(4) Choose [H. F. V.] item of I²C ADJ items.
(5) Adjust HOR. DRIVE frequency to following spec. by changing value of [H. F. V]. (This should never need adjustment).
ADJ. SPEC. = 33. 75kHz +/-0. 25kHz.



2. FINAL ASSEMBLY ADJUSTMENT

2.1 Cut Off Adjustment

Adjustment preparation
(1) Set R and G drive VR's on CPT P.W.B. to center.
(2) Adjust screen VR's on Focus Pack fully counterclockwise.
(3) Adjust Focus VR's on Focus Pack fully clockwise.
(4) Set video conditions to factory reset.
(5) The vertical incident illumination on the screen should be 20 lux or less (room should be dark).

Adjustment procedure
(1) Press INPUT key on control panel and then POWER ON to access I²C adjustment mode.
(2) Choose "SERVICE" item from I²C adjustment menu by pressing cursor ▶.
(3) Screen VR should be turned clockwise gradually and set so that retrace line begins to appear.
(4) Return to "NORMAL" mode by cursor ▶ again.
(5) Adjust Focus VR's so that focus is even all around screen.

2.2 DCU Cross Hatch Phase Setting

Adjustment preparation
(1) Cut off adjustment should finished.
(2) Set video conditions to factory reset.

Adjustment procedure

PROGRESSIVE MODE

(1) Receive any NTSC signal.
(2) Push "SERVICE ONLY" SW on DEFLECTION PWB. (Going to DCU ADJ. mode).

(3) Push HELP key on R/C. (Green cross hatch is displayed).
Then push EXIT key on R/C. (Character pattern is displayed. This is the PHASE setting mode).
(4) Set PH-H phase data as shown below by using 4 and 6 key on R/C.
(5) Set PH-V phase data as shown below by using 2 and 5 key on R/C.
(6) Set CR-H phase data as shown below by using ◀ and ▶ key on R/C.
(7) Set CR-V phase data as shown below by using ▲ and ▼ key on R/C.
(8) Push HELP key on R/C to exit from the PHASE mode.
(9) Push MOVE key 2 times on R/C to write the phase data to memory.
(10) When Green dots are displayed, push MUTE key to return to DCU ADJ. mode.
(11) Push "SERVICE ONLY" SW to return to RF or VIDEO mode.

HD MODE

(12) Receive any HD signal (Set to video: 2 mode w/ HD input to component jacks).
(13) Repeat steps (2) ~(11) above.

PROGRESSIVE MODE

PHASE MODE

PH-H: BD
PH-V: 0D
CR-H: 4C
CR-V: 00

HD MODE

PHASE MODE

PH-H: BD
PH-V: 06
CR-H: 4C
CR-V: 0C

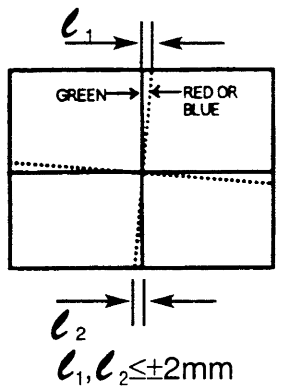
2.3 Raster Tilt adjustment (Deflection yoke)

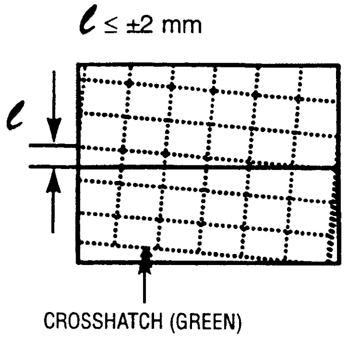
Adjustment preparation

(1) The set can face east or west.
(2) Input the single cross test signal.
(3) Set video conditions to factory reset.
(4) The lens focus adjustment should have been coarse adjusted.
(5) The electric focus should have been coarse adjusted.
(6) The digital convergence RAM should be cleared (uncorrected state). With the TV set off, press and hold the service switch located on the Power/Deflection PWB and then press the power button.
(7) Start adjustment 20 minutes or more after TV is turned on.

Adjustment procedure

(1) Apply covers to the R and B lenses and project only green light.
(2) Turn the G deflection yoke and adjust the vertical raster inclination.
(3) Then, remove the cover of R or B lens and project red or blue light and green light together on screen.
(4) Turn the deflection yoke of R or B and set so that the inclination of R or B with respect to the green light is as shown below on the top and bottom sides.
(5) After raster inclination adjustment, fixing screw of DY should be screwed with 12±2kg-cm torque.





Notes: (1) If internal cross-hatch does not appear after clearing RAM data, press service switch again, on POWER/DEFLECTION PWB.
(2) To restore old RAM data, turn TV off and on.

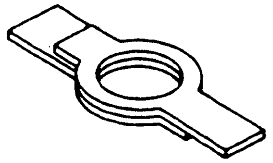
2.4 Beam alignment

Adjustment preparation

(1) Adjust at least 30 minutes after turning on power switch.
(2) Raster tilt should be completed. Raster position, horizontal and vertical size, and optical focus adjustment should be coarse adjusted.
(3) Set video conditions to factory reset.
(4) Receive cross-hatch signal. (Use of internal cross-hatch signals allowed.)
(5) Short-circuit all metal parts (metal fittings, centering magnet) installed on the projection tubes to GND's of the projection tubes.
Since metal parts are charged with electricity, shocks may be caused if they are not short circuited.

Adjustment procedure

(1) Green (G) tube beam alignment adjustment. Short-circuit 2P subminiature connector plug pins of Red (R) and Blue (B) on the CPT boards and project only Green (G) light or you may cover the R and B lens.
(2) Put Green (G) tube beam alignment magnet to the cancel state as shown below.



(3) Turn the Green (G) static focus (Focus Pack) counterclockwise all the way and make sure of position of cross-hatch center on screen. (Halo state.)
(4) Turn the Green (G) static focus (Focus Pack) clockwise all the way. (Blooming state.)
(5) Turn two magnets forming alignment magnet in any desired direction and move cross-hatch center to position found in (3).
(6) If image position does not shift when Green (G) static focus (Focus Pack) is turned. Green (G) beam alignment has been completed.
(7) If image position shifts when Green (G) static focus (Focus Pack) is turned, repeat (2)-(6).
(8) Conduct beam alignment for red (R) focus: Focus Pack UFPK Blue (B) focus: Focus Pack UFPK.
(9) Upon completion of adjustment, fix beam alignment magnets with white paint.

2.5 Raster position adjustment

Adjustment preparation

(1) The set can face east or west.
(2) Input the single cross test signal.
(3) Set video conditions to factory reset.
(4) The electric focus should have been coarse adjusted.
(5) The digital convergence RAM should be cleared (uncorrected state). With the TV set off, press and hold the service switch located on the Power/Deflection PWB and then press the power button.
(6) Start adjustment 20 minutes or more after TV is turned on.

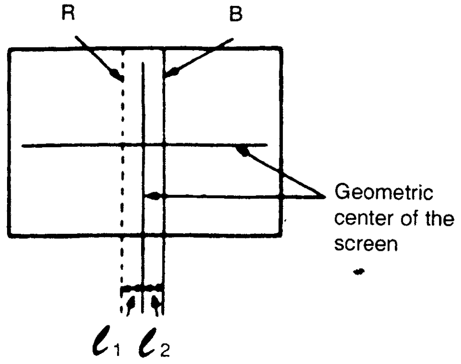
Adjustment procedure

(1) Turn the centering magnets for red, green, and blue to satisfy the condition below. The red and blue horizontal lines should match with green.

60SDX88B

	ℓ_1 (RED)	ℓ_2 (BLUE)
60"	15	25

Tolerance: ± 2mm



NOTES: (1) If internal cross-hatch does not appear after clearing RAM data, press service switch again.
(2) To restore old RAM data, turn TV off and on.

2.6 Horizontal size adjustment

Adjustment preparation

(1) The set can face east or west.
(2) Set video conditions to factory reset.
(3) The electric focus should have been coarse adjusted.
(4) Start adjustment 20 minutes or more after TV is turned on.

Adjustment procedure

PROGRESSIVE MODE

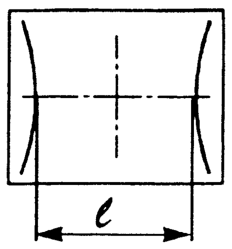
(1) Receive any NTSC signal.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose H. SIZE item by using Remote ▲,▼ cursor buttons.
(4) Adjust H. SIZE as following by using Remote ◀,▶ cursor buttons.

HD MODE

(1) Input 1080I (fH=33. 75kHz) component signal to VIDEO 2.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose H. SIZE item by using Remote ▲,▼ cursor buttons.
(4) Adjust H. SIZE as following by using Remote ◀,▶ cursor buttons.
(5) After adjustment, press SERVICE ONLY SW to exit from I²C adjustment mode.

ℓ =	PROGRESSIVE MODE	HD MODE
60"	1190	1190

Tolerance: ± 5mm



Note: (1) If internal cross-hatch does not appear after clearing RAM data, press service switch again.
(2) To restore old RAM data, turn TV off and on.

2.7 Vertical size adjustment

Adjustment preparation

(1) The set can face east or west.
(2) Set video conditions to factory reset.
(3) Horizontal size adjustment should be finished.
(4) The electric focus should have been coarse adjusted.
(5) Start adjustment 20 minutes or more after TV is turned on.

Adjustment procedure

PROGRESSIVE MODE

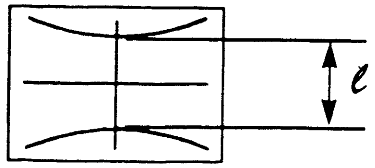
(1) Receive any NTSC signal.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose V. SIZE item by using Remote ▲,▼ cursor buttons.
(4) Adjust V. SIZE as following by using Remote ◀,▶ cursor buttons.

HD MODE

(1) Input 1080I (fH=33. 75kHz) component signal to VIDEO 2.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose V. SIZE item by using Remote ▲,▼ cursor buttons.
(4) Adjust V. SIZE as following by using Remote ◀,▶ cursor buttons.
(5) After adjustment, press SERVICE ONLY SW to exit from I²C adjustment mode.

ℓ =	PROGRESSIVE MODE	HD MODE
60"	770	795

Tolerance: ± 5mm



Note: (1) If internal cross-hatch does not appear after clearing RAM data, press service switch again (on POWER/DEFLECTION PWB).
(2) To restore old RAM data, turn TV off and on.

2.8 Trapezoid Distortion Adjustment

Adjustment preparation

(1) Set video conditions to factory reset.

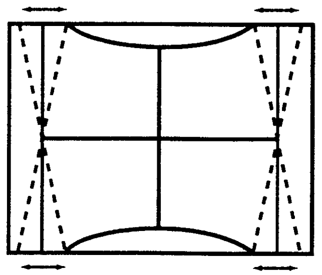
Adjustment procedure

PROGRESSIVE MODE

(1) Receive any NTSC signal.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose TRAPEZOID item by using Remote ▲,▼ cursor buttons.
(4) Adjust TRAPEZOID as following by using Remote ◀,▶ cursor buttons.

HD MODE

(1) Input 1080I (fH=33. 75kHz) component signal to VIDEO 2.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose TRAPEZOID item by using Remote ▲,▼ cursor buttons.
(4) Adjust TRAPEZOID as following by using Remote ◀,▶ cursor buttons.
(5) After adjustment, press SERVICE ONLY SW to exit from I²C adjustment mode.



Vertical Screen frame line & edge of vertical DCU crosshatch line should be parallel.

2.9 Side Pin Distortion Adjustment

Adjustment preparation

(1) Set video conditions to factory reset.

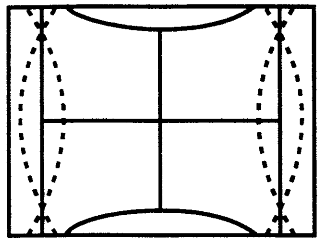
Adjustment procedure

PROGRESSIVE MODE

(1) Receive any NTSC signal.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose SIDE PIN item by using Remote ▲,▼ cursor buttons.
(4) Adjust SIDE PIN as following by using Remote ◀,▶ cursor buttons.

HD MODE

(1) Input 1080I (fH=33. 75kHz) component signal to VIDEO 2.
(2) Press and hold the SERVICE ONLY SW on DEFLECTION PWB and press the MUTE key on Remote.
Green DCU cross-hatch and I²C Adjustment MENU should appear and digital convergence RAM should be cleared (uncorrected state).
(3) Choose SIDE PIN item by using Remote ▲,▼ cursor buttons.
(4) Adjust SIDE PIN as following by using Remote ◀,▶ cursor buttons.
(5) After adjustment, press SERVICE ONLY SW to exit from I²C adjustment mode.



Edge of vertical DCU crosshatch line should be straight.

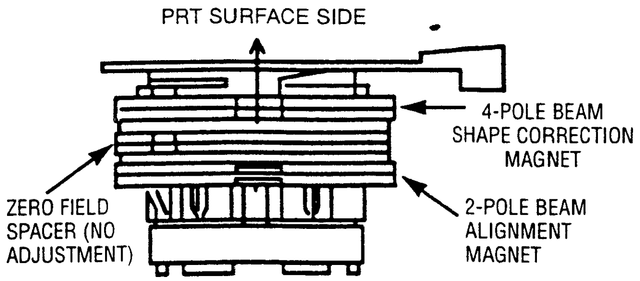
2.10 Beam form adjustment

Adjustment preparation

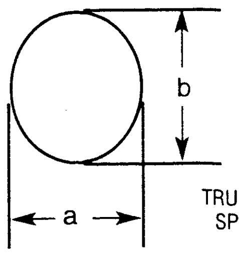
(1) The beam alignment should have been completed.
(2) The raster tilt, centering, horizontal/vertical size, trapezoid and side pin adjustment should have been completed.
(3) Set video conditions to factory reset.
(4) Input the dot signal.

Adjustment procedure

(1) Green PRT beam shape adjustment. Short-circuit 2P sub-mini connectors on Red and Blue CPT P.W.B.s to project only the Green beam.
(2) Turn the green static focus VR, on the Focus Pack, fully clockwise. (Blooming.)
(3) Make the dot at the screen center a true circle using the 4-pole magnet as shown below.
(4) Also adjust the Red and Blue PRT beam shapes according to the steps (1) to (3).
(5) After the adjustment has been completed, return R, G and B static VRs to the just focus point.


PRT SURFACE SIDE
4-POLE BEAM SHAPE CORRECTION MAGNET
ZERO FIELD SPACER (NO ADJUSTMENT)
2-POLE BEAM ALIGNMENT MAGNET

TRUE CIRCLE SPECIFICATION



TRUE CIRCLE DEGREE: a/b
SPECIFICATION: 0.9-1.1

2.11 Lens focus adjustment

Adjustment preparation

(1) The set can face in any direction: west, east, north or south.
(2) Receive the cross-hatch pattern signal.
CONTRAST : HALF
BRIGHTNESS : MINIMUM
(3) The electrical focus adjustment should have been coarse adjusted.
(4) The raster position and raster tilt should have been adjusted.

Adjustment procedure

(1) Loosen the fixing screw on the lens cylinder so that the lens cylinder can be turned. (Be careful not to loosen too much. If it is loosened too much, rattling when tightening becomes greater and the focus may drift). After completing steps (5), (6) and (7) below, tighten the fixing screws for each lens with a torque of 12~17 Kgf•cm.
(2) Apply covers to 2 of R, G and B lenses, and project a single color on the screen and adjust in sequence.
(The adjustment order of R, G and B is only an example.)
(3) For each of the R, G and B lenses, observe the color abberation generated on the outer circumference of the cross-hatch bright line at the center section ±3 pitches vertically and horizontally from the center as well as in each corner of the screen.
(4) If the lens adjustment knob is turned clockwise, viewed from the front, the color aberration changes as follows.

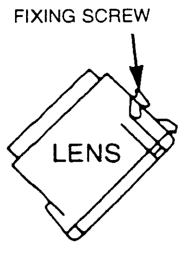
	Change of color aberration	
	Short focus	Long focus
R lens	Orange	Scarlet
G lens	Blue	Red
B lens	Purple	Green

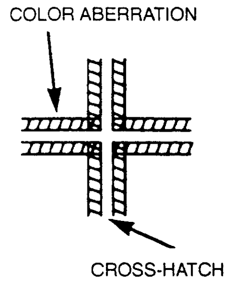
(5) In case of G lens, set to the point where the chromatic aberration switches from blue to red. If the chromatic aberration appearing all over the screen is not the same, observe the vertical bright line at the center of the screen and set to the position where red chromatic aberration slightly appears inside and blue outside.
(6) In case of R lens, set to the position where the chromatic aberration changes from orange to scarlet. If the chromatic aberration appearing all over the screen is not the same, observe the vertical bright line at the center and set to the

position where the scarlet chromatic aberration slightly appears inside and orange outside.

(7) In case of B lens, set to the position where the chromatic aberration changes from purple to green. If the chromatic aberration appearing all over the screen is not the same, observe the vertical bright line at the center and set to the position where green chromatic aberration slightly appears inside and purple outside.

Notes: (1) Fixing screw (2) Color aberration





(3) Since the Green light is very important for picture quality and performance, pay special attention to its adjustment.

Note: Be careful not to touch the lens with your fingers when adjusting.

(4) For red, setting to the center between orange and scarlet is optimum.

(5) For blue, setting to the center between purple and green is optimum.

(6) All colors should have relatively uniform, good focus at all areas of screen.

2.12 Static focus adjustment

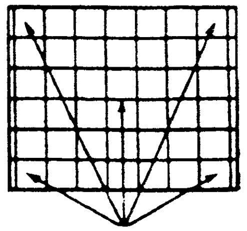
Adjustment preparation

(1) The raster tilt, raster position, horizontal/ vertical size, lens focus, beam form, and beam alignment should have been adjusted.
(2) Set video conditions to factory reset.
(3) Receive the cross-hatch pattern signal.
(4) Apply covers to the lenses of colors other than the color to be adjusted and project a single color.

Adjustment procedure

(1) Red (R), Green (G) and Blue (B) static focus adjustment. Vary the static focus VR (focus pack UFPK) and make the center of the cross-hatch pattern clearest.
(2) Observe the corners of the picture and check that the focus does not get conspicuously worse.

OBSERVING POINTS OF THE CORNER OF THE PICTURE



OBSERVING POINTS

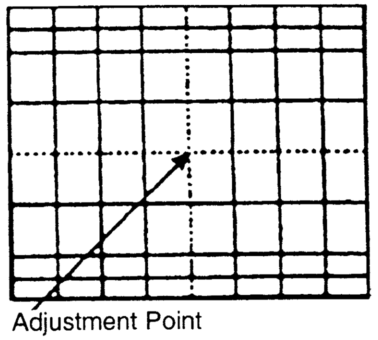
Note: Since the Green light is very important for picture quality and performance, pay special attention to its adjustment.

2.13 Digital convergence adjustment

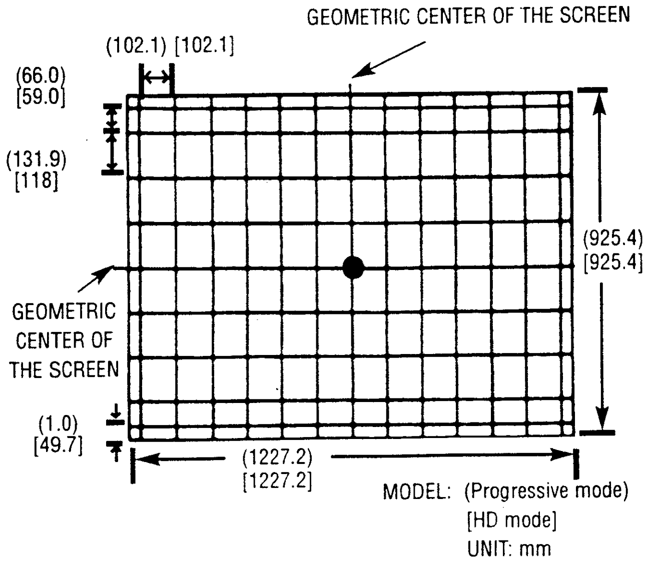
Note: If replacing a PRT, DY, etc. perform auto-digital convergence first. (Press front panel MAGIC FOCUS switch when in normal customer mode). This can eliminate the need for a complete digital convergence alignment.

Adjustment preparation

(1) Receive an RF or video signal.
(2) Set controls to factory preset.
(3) Install jig screen on the set.
(4) Note the center of the video pattern displayed. This is necessary to match dotted lines (adjustment point viewed) and actual point that is adjusted and displayed by the video signal.
(5) Press the service only switch (on POWER/DEFLECTION PWB). The pattern displayed is now the digital convergence mode.
(6) When performing a complete digital convergence adjustment CLEAR DATA in RAM. (With the TV set off, press and hold the service switch located on the Power/Deflection P.W.B. and then press the POWER button).



JIG SCREEN SPECIFICATION



Note: If only minor adjustments to convergence are needed, the jig screen is not necessary. Use digital data stored in memory and one color as a reference (red, green, or blue). DO NOT CLEAR DATA and WRITE to ROM memory.

2.13.1 Raster position adjustment

Adjustment preparation

(1) Position adjustment - This will move an entire color. Use this adjustment to match colors at the center of the screen. (Active video center from external signal and physical screen center should now match from phase adj. 2.2.).
(2) Use the buttons below to switch color to adjust.
"RECALL" - Green
"0" - Red
"INPUT" - Blue

Adjustment procedure

(1) Press the FRZ button. Extra horizontal lines appear to confirm raster position mode.
(2) Use the cursor buttons to adjust position.
(3) Press FRZ again to exit raster position mode.

Notes: (1) Other functions cannot be accessed when in raster position adjustment mode. Press FRZ and confirm extra horizontal lines disappear to exit raster position mode.
(2) Press MENU to switch between all colors displayed or adjustment color and Green only.

2.13.2 Convergence point adjustment

Adjustment preparation

(1) Select color to adjust.
"RECALL" - Green
"0" - Red
"INPUT" - Blue
(2) Use 4, 6, 2, and 5 to move the cursor position (dotted lines).
(3) Use cursor buttons to move the convergence point.
(4) Three adjustment modes are available:
1. (3x3) Press "RECALL" 5 times
2. (7x5) Press "0" 5 times
3. (13x9) Press "INPUT" 5 times

For touch-up, only the (13x9) mode is necessary. This will adjust every cross-hatch intersection point on the screen.

For complete adjustment, start with (3x3) mode. This will adjust center point and eight edge points only, but will greatly reduce adjustment time. Then use (7x5) mode, and finally (13x9) mode to finish convergence.

If "S" distortion appears between cross-hatch lines repeat (7x5) mode to change calculation process while adjusting to remove distortion, then return to (13x9) mode to finish touch-up convergence.

Adjustment procedure

PROGRESSIVE MODE

(1) Receive any NTSC signal.
(2) Start adjustment at the center of the screen.
(3) Continue adjustment at next closest position.
(4) Adjust center area first, ending with edge sections.
(5) Press INFO button to perform interpolation operation. This process will take about 15 seconds and no picture will be seen at this time.
(6) After interpolation, check convergence again and repeat (1)-(5) if necessary.
(7) When convergence is acceptable, press MOVE to write data to ROM memory. ROM WRITE? is displayed to alarm system that ROM will be overwritten with new data. Press the MOVE button again to write displayed data to ROM.
(8) DATA WRITE TO ROM will take approximately 20 seconds and no picture will be displayed.
(9) Green dots will be displayed when operation is complete.
(10) Press MUTE to return to convergence pattern, then confirm again convergence is acceptable.
(11) Press MOVE (ROM WRITE) mode, then press PIP CH to initialize sensor data positions.

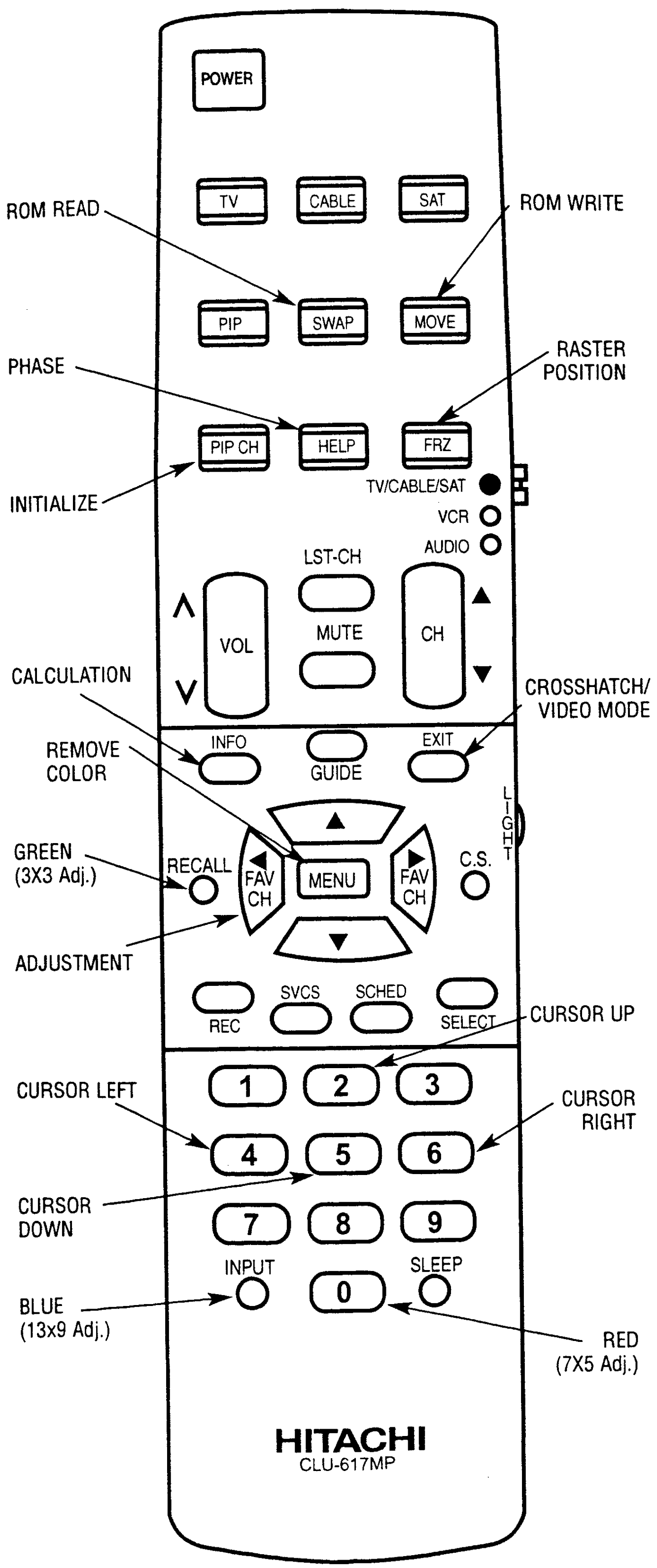
Adjustment procedure

HD MODE

(1) Receive any HD signal.
(2) Repeat steps 2~11 above.

Notes: (1) Display only green for easier adjustment and match to jig screen. Press "MENU", THEN PRESS "RECALL".
(2) Perform interpolation and data write to ROM after green adjustment. Once green has been confirmed to match jig screen, the jig screen can be removed. Do not readjust the green color after jig screen has been removed. This is now your reference color.
(3) Display green and red only and match red to green.
(4) Display all colors and match blue to green and red. Touch-up red color if necessary.
(5) Existing DATA in ROM can be read by pressing the SWAP button 2 times. This data can be used after replacing a component (CRT, DY, etc.) Where complete convergence adjustment is not necessary be careful not to overwrite this data.
DO NOT write cleared RAM data into ROM or a complete convergence adjustment will be necessary. Remember to try MAGIC FOCUS before starting convergence adjustment to minimize adjustment time.

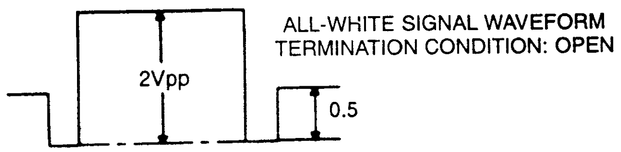
2.13.3 Digital Convergence Remote Control

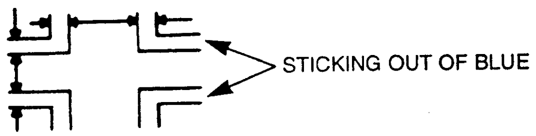

POWER
TV
CABLE
SAT
ROM READ
ROM WRITE
PIP
SWAP
MOVE
PHASE
RASTER POSITION
PIP CH
HELP
FRZ
INITIALIZE
TV/CABLE/SAT
VCR
AUDIO
LST-CH
VOL
MUTE
CH
CALCULATION
CROSSHATCH/ VIDEO MODE
REMOVE COLOR
INFO
GUIDE
EXIT
LIGHT
GREEN (3X3 Adj.)
RECALL
FAV CH
MENU
FAV CH
C.S.
ADJUSTMENT
REC
SVCS
SCHED
SELECT
CURSOR UP
CURSOR LEFT
CURSOR RIGHT
1
2
3
4
5
6
CURSOR DOWN
7
8
9
INPUT
SLEEP
0
BLUE (13x9 Adj.)
RED (7X5 Adj.)
HITACHI
CLU-617MP

2.14 Blue defocus adjustment

Adjustment Preparation
1. (1) Optical and electrical focus adjustment should have been completed.
2. (2) The convergence adjustment should have been completed.
3. (3) Set Video conditions to factory reset.
4. (4) Input the cross-hatch signal.

Adjustment procedure
1. (1) Input an all-white signal shown below to VIDEO input.
2. (2) Short-circuit 2P sub-mini connectors on the red and green CPT P.W.Bs. to display only the blue beam.
3. (3) Turn the B Focus VR (Focus Pack) fully clockwise.
4. (4) Measure the brightness at the center of the screen and turn the B FOCUS VR (Focus Pack) counterclockwise to adjust the brightness of blue.
5. (5) After the adjustment is completed, if blue exceeds the specification, turn and adjust focus so that the sticking out part of blue satisfies the specification.


ALL-WHITE SIGNAL WAVEFORM
TERMINATION CONDITION: OPEN
2Vpp
0.5


STICKING OUT OF BLUE

UNEVENNESS SPECIFICATION: ±1cd/m^2

Defocus sticking out specification

Screen Size	Blue sticking out
60"	1.0mm

Condition: User controls are set to the initial set positions (for shipment)

Measuring point-Screen center.

Cautions: Correct the amplitude of the all-white signal periodically.

2.15 White balance adjustment

1. (1) Screen adjustment
2. (2) High brightness white balance.
3. (3) Low brightness balance.

Screen adjustment VRs	Drive adjustment VRs
Red: on FOCUS PACK Green: on FOCUS PACK Blue: on FOCUS PACK	Red: R829 on CPT P.W.B. Green: R879 on CPT P.W.B.

Adjustment preparation
1. (1) Start adjustment 20 minutes or more after the power is turned on.
2. (2) The vertical incident illumination on the screen should be 20 lux or less. (Room should be dark).
3. (3) Set the video settings (CONTRAST: MAX, others: center) to standard condition.
4. (4) The blue defocus and cut off adjustments should be complete.
5. (5) For low brightness white balance adjustment, input a white raster signal level of 0.145 Vp-p (Video input level).
6. (6) For high brightness white balance adjustment, input a white raster signal level of 0.715Vp-p (Video input level).
7. (7) Set the drive adjustment VRs (red and green) to 12 - 2 o'clock position.
8. (8) Set video advanced setting white control to COOL position.

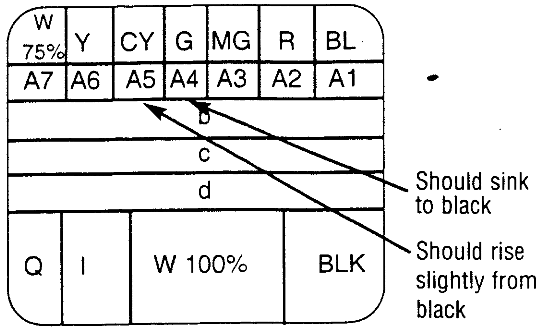
Adjustment procedure
1. (1) Select the input signal for high brightness (Video level = 0.715Vpp).
2. (2) Adjust the high brightness white balance using the drive adjustment VRs (red, green).
3. (3) Select the signal for low brightness (Video level = 0.145Vpp)
4. (4) Adjust the low brightness white balance using the screen adjustment VRs (red, green, blue). (Visually adjust).
5. (5) Check that high brightness white balance is still obtained. If it is not, return to step (2).

NOTE: When adjusting low level white balance, turn the screen VRs counterclockwise. The cut-off adjustment should already be complete and the screen VR's should not be increased past the level set at cut-off. Since the phosphorescent surface of the CRT is likely to be burned, be careful.

White balance = 9300° K ± 0MPCD
Color coordinate = x 0.285
y 0.295

2.16 Sub brightness adjustment

Adjustment preparation
1. (1) Start adjustment 20 minutes or more after the power is turned ON.
2. (2) Receive the color bar signal.
3. (3) Set video conditions to factory reset.
4. (4) The vertical incident illumination on the screen should be 20 lux or less. (Room should be dark).


W 75%
Y
CY
G
MG
R
BL
A7
A6
A5
A4
A3
A2
A1
b
c
d
Q
I
W 100%
BLK
Should sink to black
Should rise slightly from black

Adjustment procedure
1. (1) Go to "Sub Brightness" adjustment in I²C ADJUST mode (press Input and Power button on Control panel at same time), using ▲ ▼ buttons and then ▶ button.
2. (2) Then adjust "Sub Brightness" using ◀ ▶ buttons to increase or decrease the value, according to figure. (Visually adjust).
3. (3) After adjustment, press MENU button to exit I²C ADJUST mode. (Data is stored in memory).

Note: When selecting SUB-BRIGHTNESS mode the microcontroller sets the CONTRAST and COLOR to MIN. automatically, but make sure that the other conditions are center.
Directly observe the screen by eye without using a mirror.

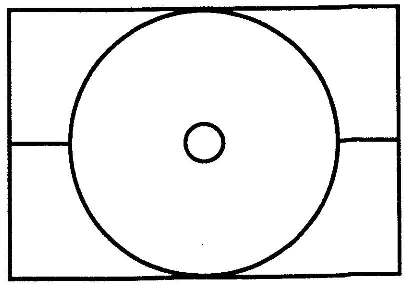
2.17 Horizontal and Vertical position adjustment

Adjustment preparation
1. (1) The set should face East or West.
2. (2) Set video conditions to factory reset.
3. (3) DIGITAL CONVERGENCE adjustment should be finished. (Progressive mode and HD mode).

Adjustment procedure

PROGRESSIVE MODE

1. (1) Receive cross hatch pattern.
2. (2) Go to I²C Adjustment mode by pressing INPUT and POWER button on control panel at the same time.
3. (3) Choose H. POSI item by using Remote ▲,▼ cursor buttons.
4. (4) Adjust HOR. POSITION as following by using Remote ◀,▶ cursor buttons.
5. (5) Choose V. POSI item by using Remote ▲,▼ cursor buttons.
6. (6) Adjust V. Position as following by using Remote ◀,▶ cursor buttons.

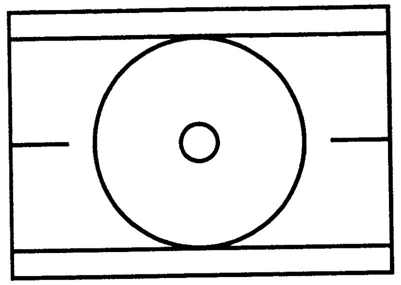


Spec: Balance Left/Right side display position for H. position.

Balance Top/Bottom side display position for V. position.

HD MODE

(1) Input 1080I (fH=33. 75kHz) component circle pattern signal to VIDEO 2.
(2) Go to I²C Adjustment mode by pressing INPUT and POWER button on control panel at the same time.
(3) Choose H. POSI item by using Remote ▲,▼ cursor buttons.
(4) Adjust HOR. POSITION as following by using Remote ◀,▶ cursor buttons.
(5) Check V. POSI item by using Remote ▲,▼ cursor buttons.
(6) Adjust V. Position as following by using Remote ◀,▶ cursor buttons.

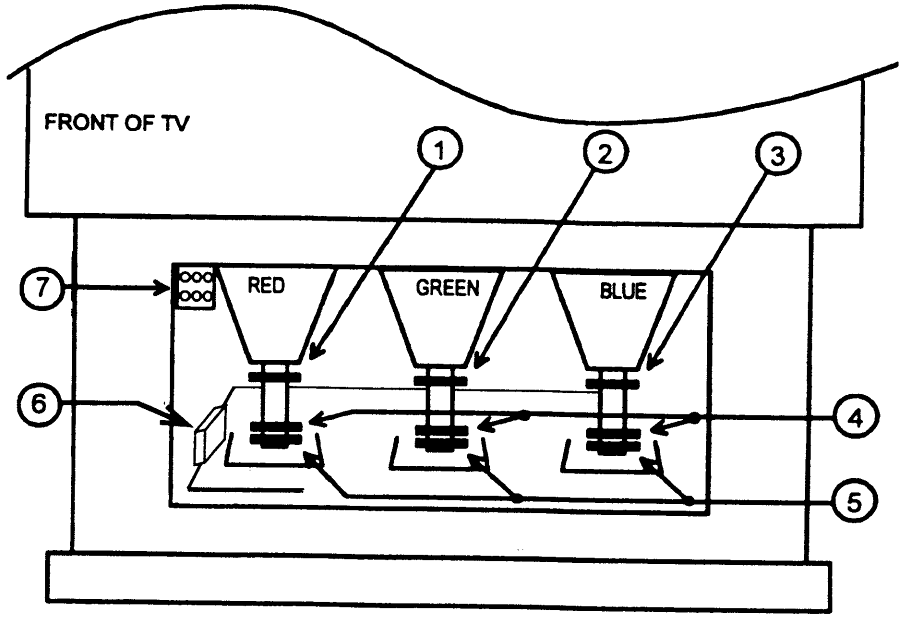


Spec: Balance Left/Right side display position for H. position.

Balance Top/Bottom side display position for V. position.

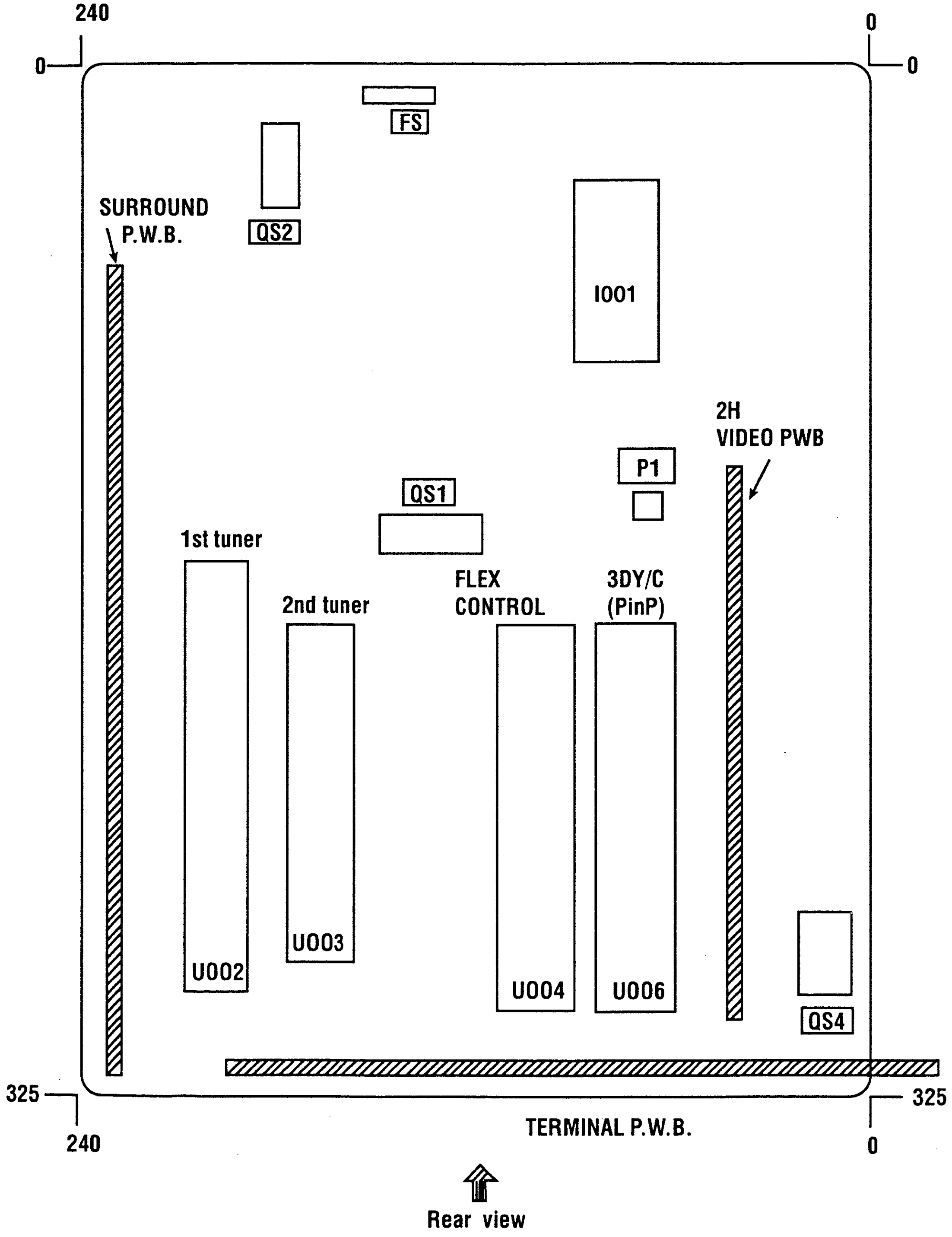
3. ADJUSTMENT POINT

3.1 CRT, cabinet locations

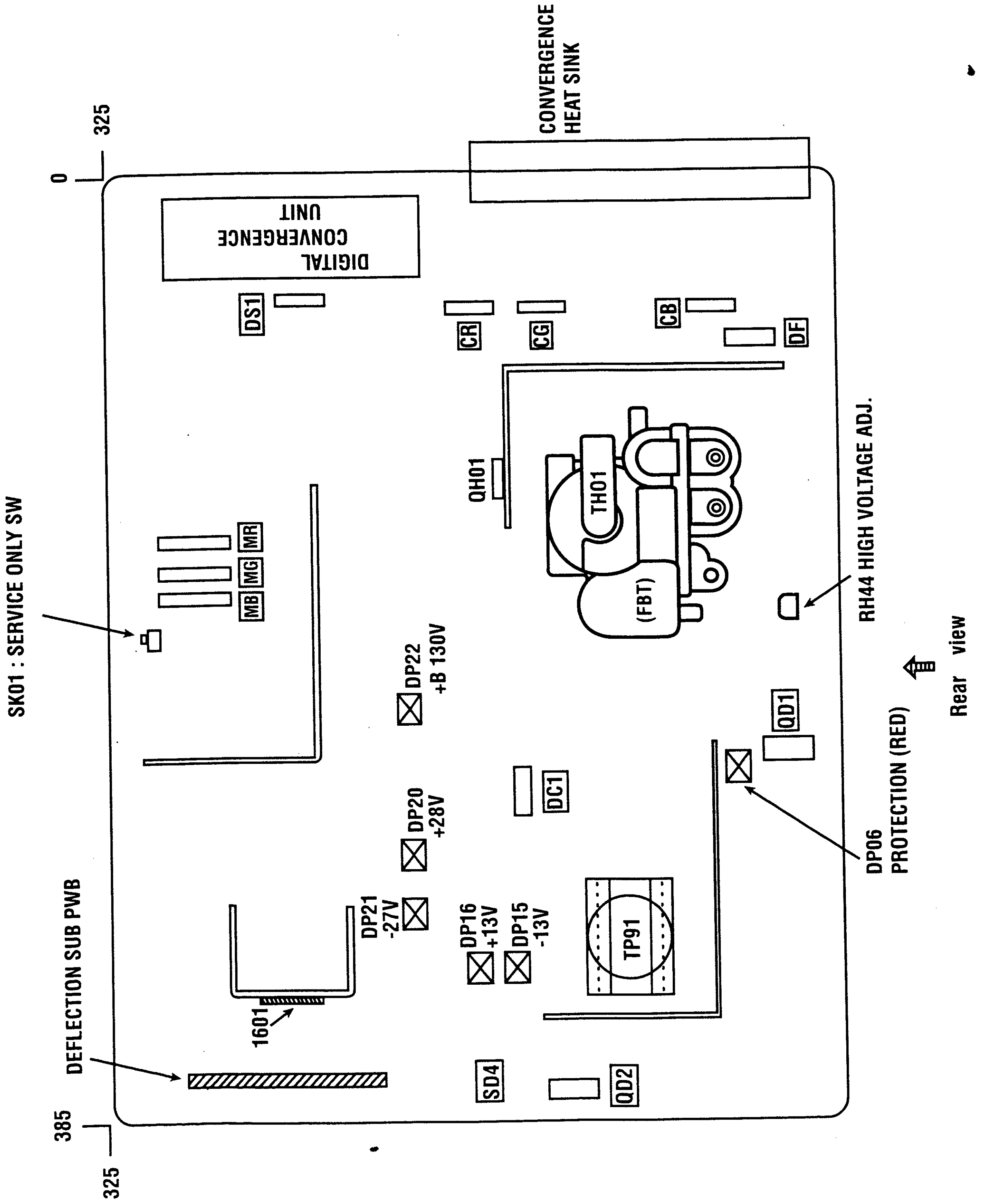


1. CENTERING MAGNET FOR RED PRT
2. CENTERING MAGNET FOR GREEN PRT
3. CENTERING MAGNET FOR BLUE PRT
4. 4-POLE MAGNET FOR BEAM FORM ADJUSTMENT
5. BEAM ALIGNMENT MAGNET
6. DIGITAL CONVERGENCE MODULE (On Power/Deflection Board)
7. FOCUS PACK (Top Adjustments for Screen, Bottom for Focus)

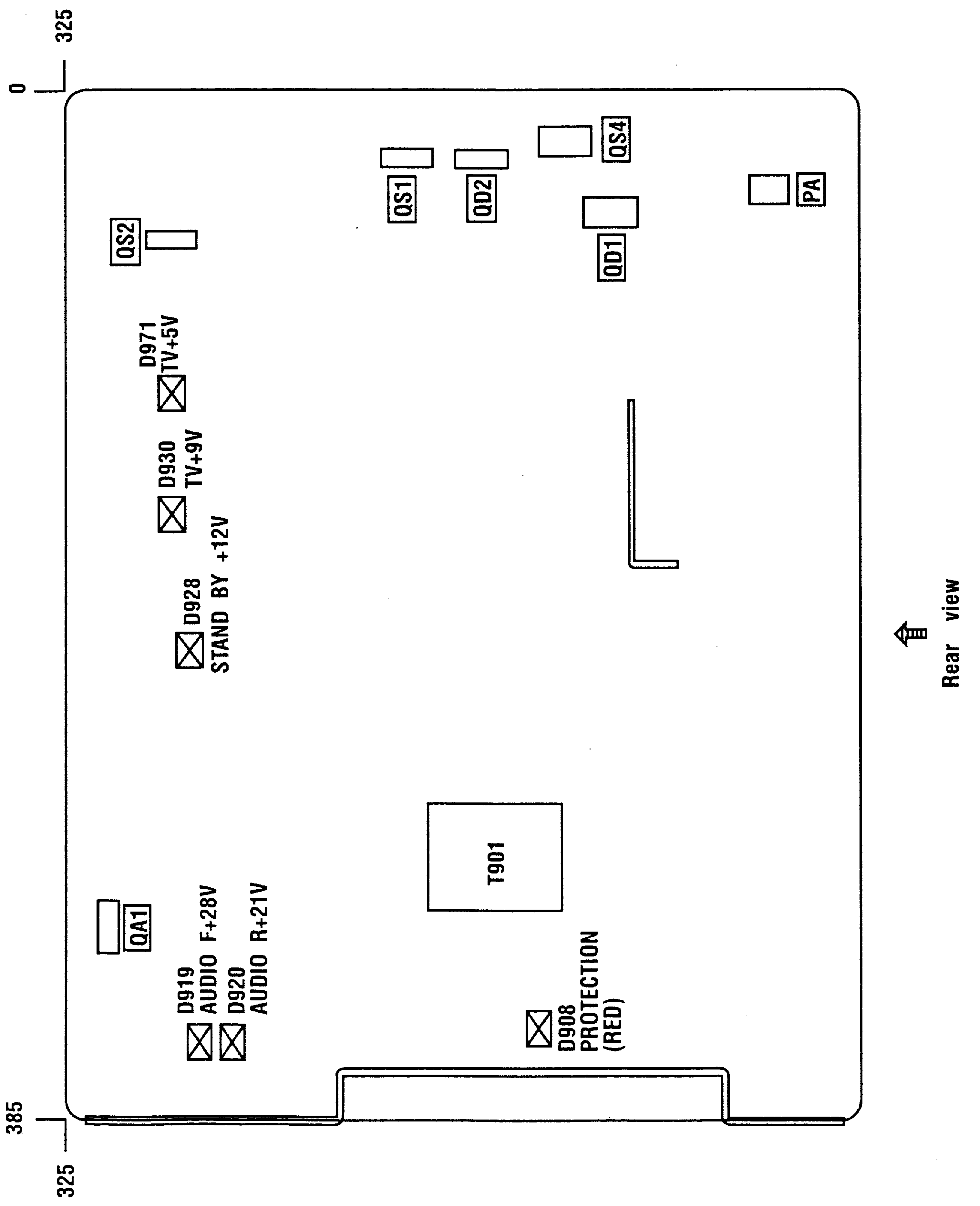
3.2 MAIN CHASSIS
(Signal P.W.B.)


240
0
0
0
FS
QS2
SURROUND P.W.B.
I001
2H VIDEO PWB
P1
QS1
1st tuner
2nd tuner
FLEX CONTROL
3DY/C (PinP)
U002
U003
U004
U006
QS4
325
240
TERMINAL P.W.B.
325
0
Rear view

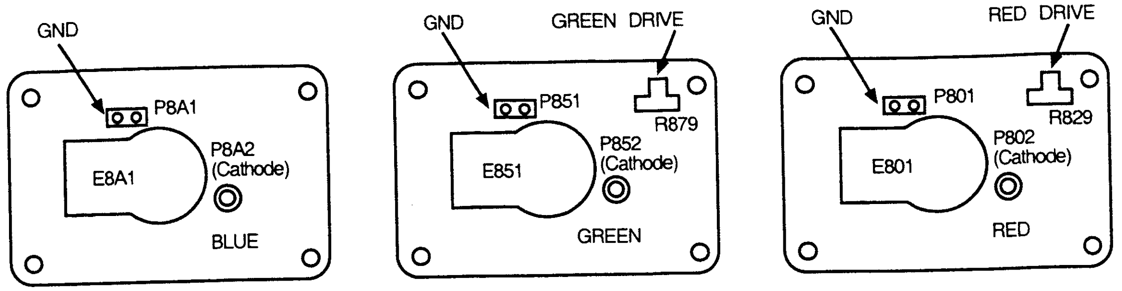
3.3 MAIN CHASSIS
(Power/Deflection P.W.B.)

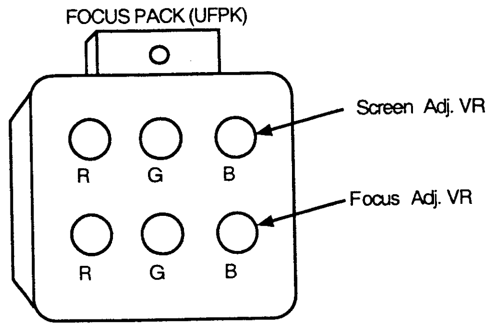

CONVERGENCE HEAT SINK
325
0
DIGITAL CONVERGENCE UNIT
DS1
CR
CG
CB
DF
QH01
TH01
(FBT)
RH44 HIGH VOLTAGE ADJ.
SK01 : SERVICE ONLY SW
MR
MG
MB
DP22 +B 130V
Rear view
QD1
DP06 PROTECTION (RED)
DC1
DP20 +28V
DEFLECTION SUB PWB
DP21 -27V
DP16 +13V
DP15 -13V
TP91
1601
SD4
QD2
385
325

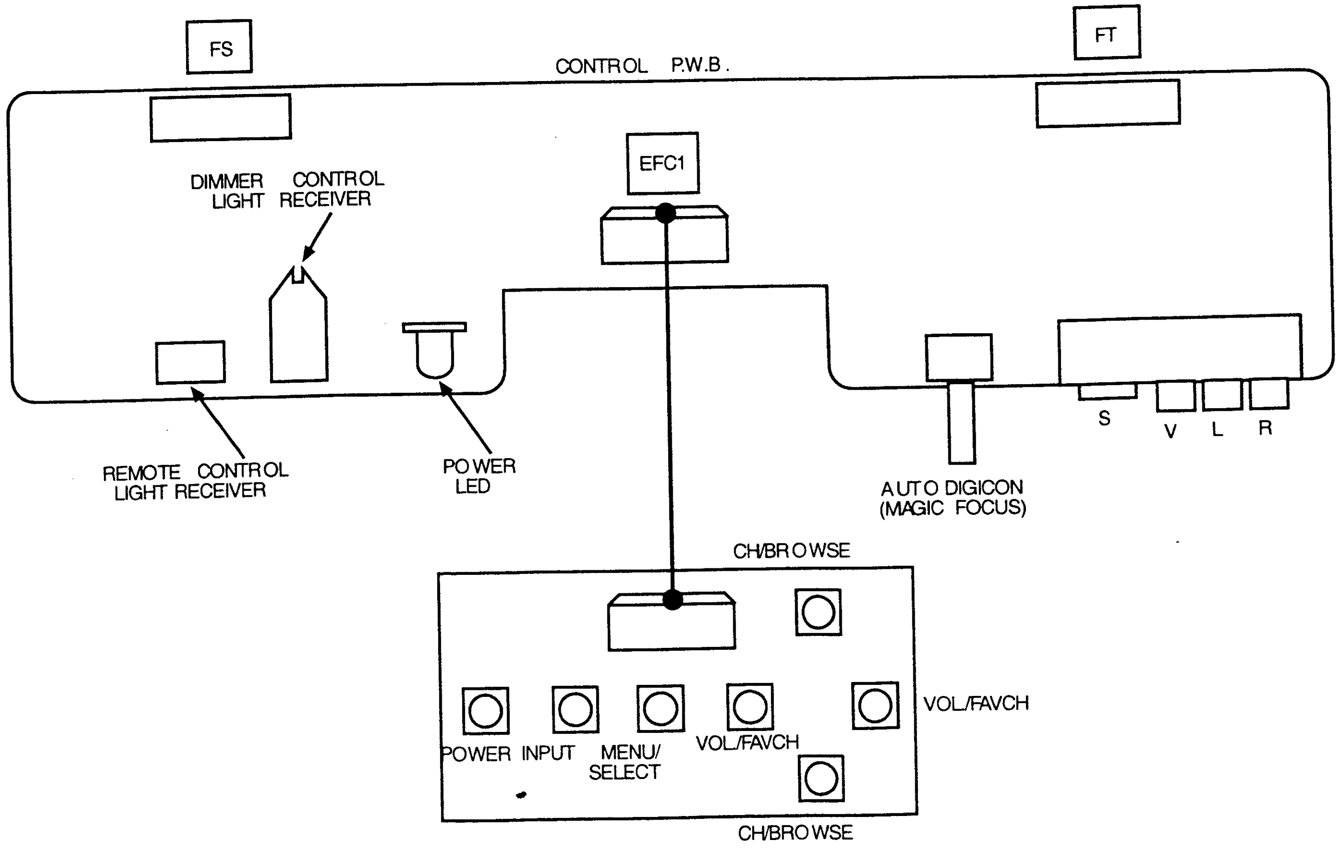
3.4 POWER SUPPLY P.W.B.


325
0
QS2
QS1
QD2
QS4
QD1
PA
D971
TV+5V
D930
TV+9V
D928
STAND BY +12V
Rear view
T901
QA1
D919
AUDIO F+28V
D920
AUDIO R+21V
D908
PROTECTION
(RED)
385
325

3.5 CPT (R) (G) (B), Focus Pack, Control P.W.B.

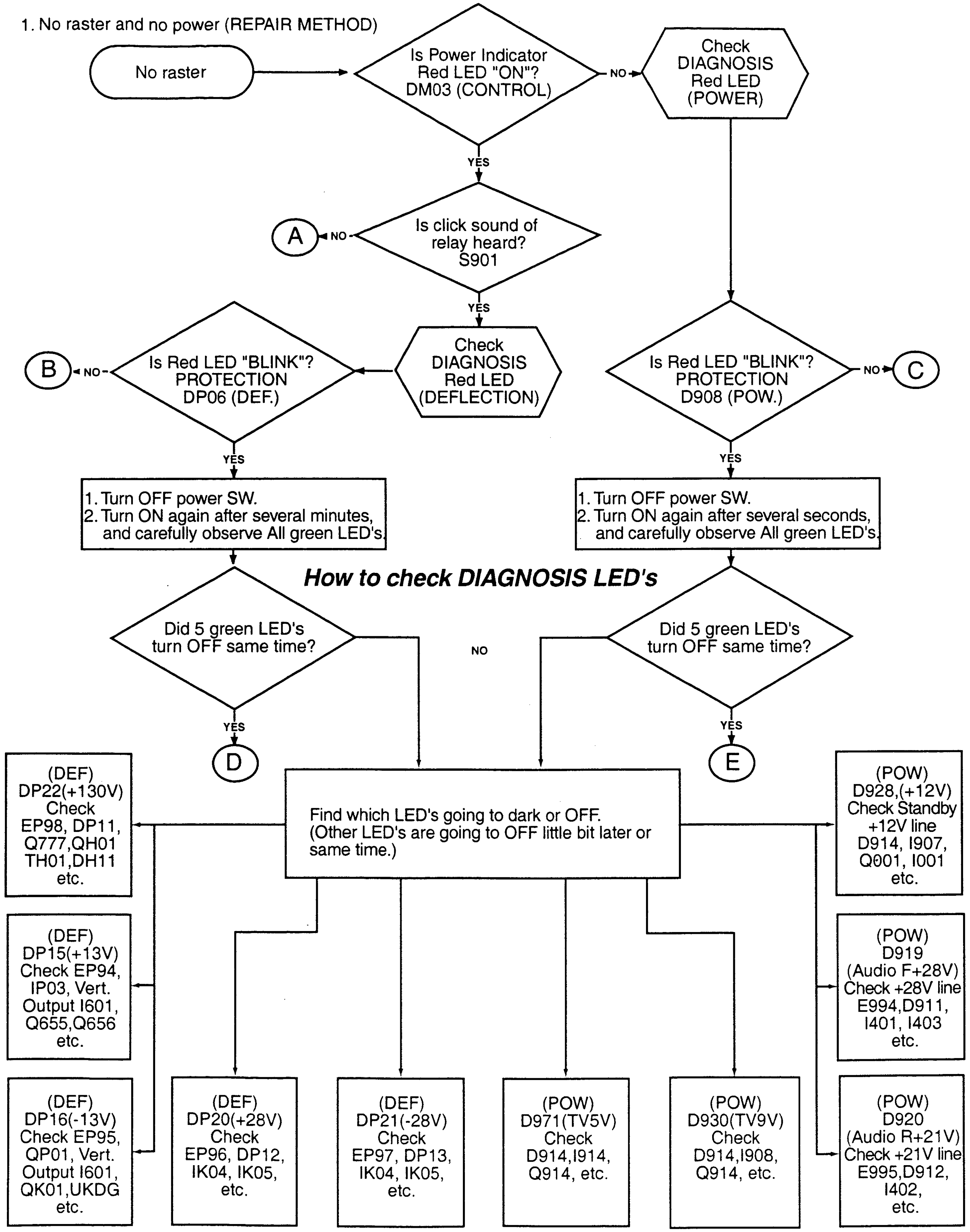

GND
P8A1
E8A1
P8A2
(Cathode)
BLUE
GND
GREEN DRIVE
P851
R879
E851
P852
(Cathode)
GREEN
GND
RED DRIVE
P801
R829
E801
P802
(Cathode)
RED

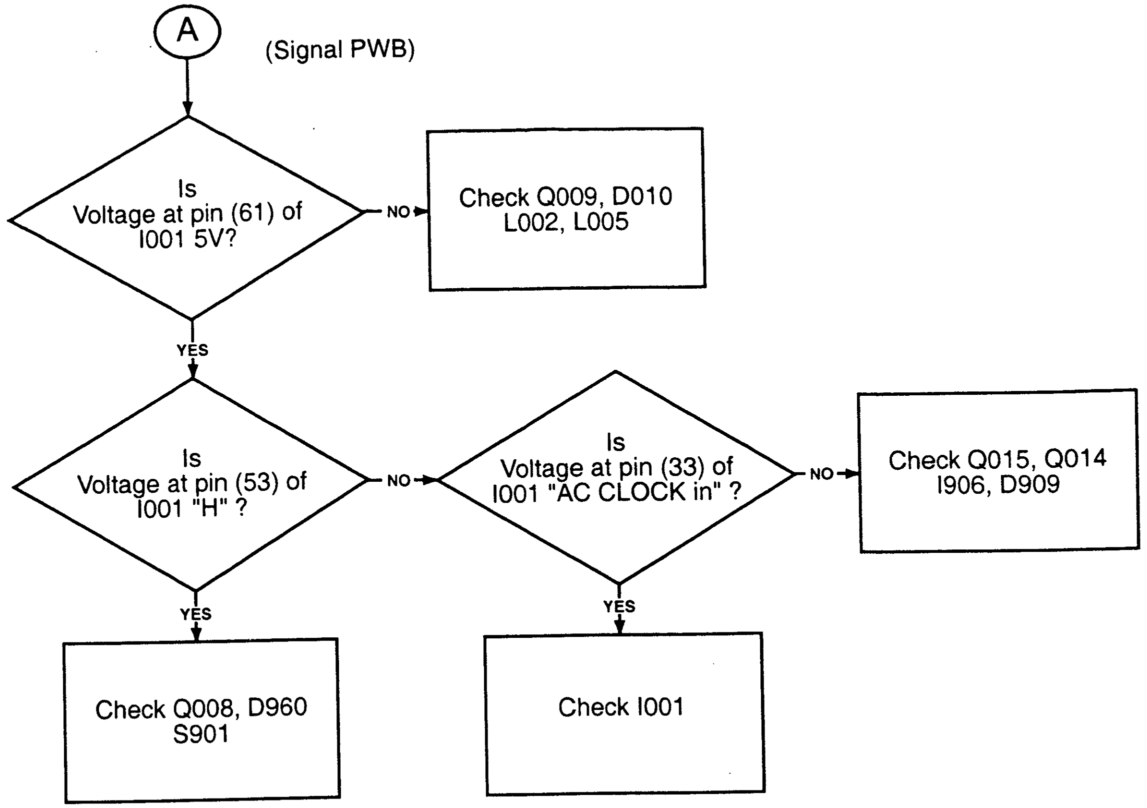

FOCUS PACK (UFPK)
Screen Adj. VR
Focus Adj. VR
R
G
B
R
G
B

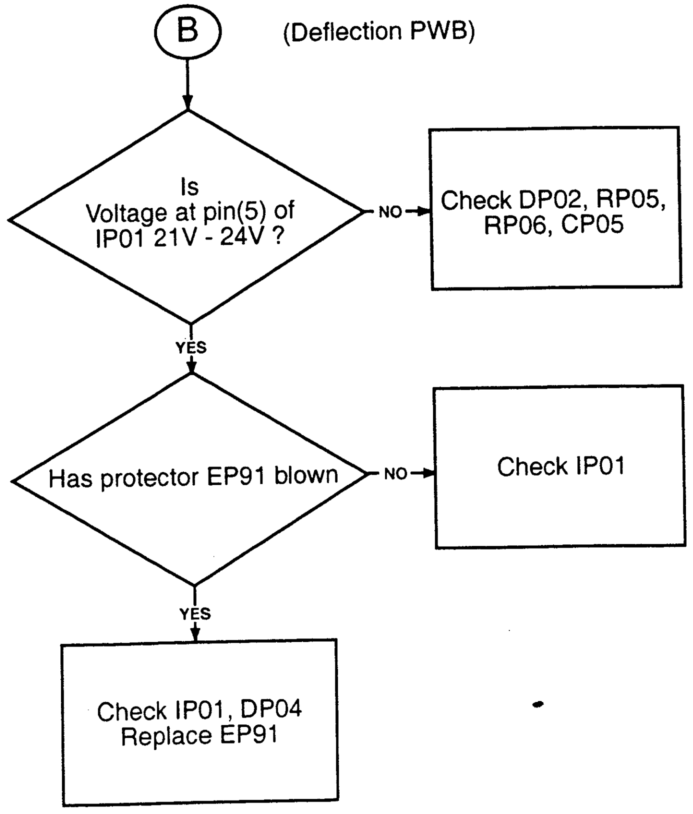

FS
FT
CONTROL P.W.B.
EFC1
DIMMER LIGHT
CONTROL RECEIVER
REMOTE CONTROL LIGHT RECEIVER
POWER LED
AUTO DIGICON (MAGIC FOCUS)
S
V
L
R
CH/BROWSE
POWER
INPUT
MENU/ SELECT
VOL/FAVCH
VOL/FAVCH
CH/BROWSE

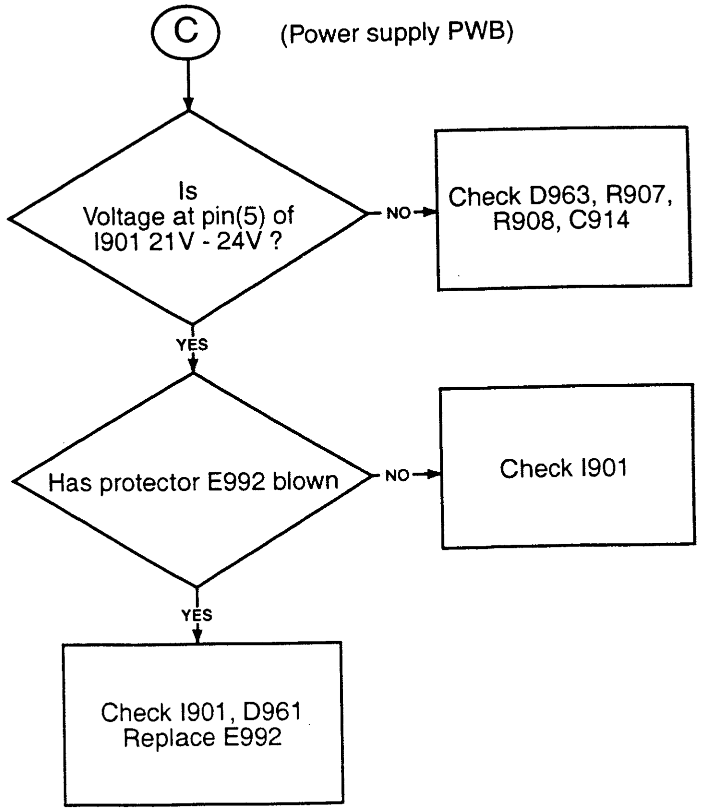
TROUBLE SHOOTING

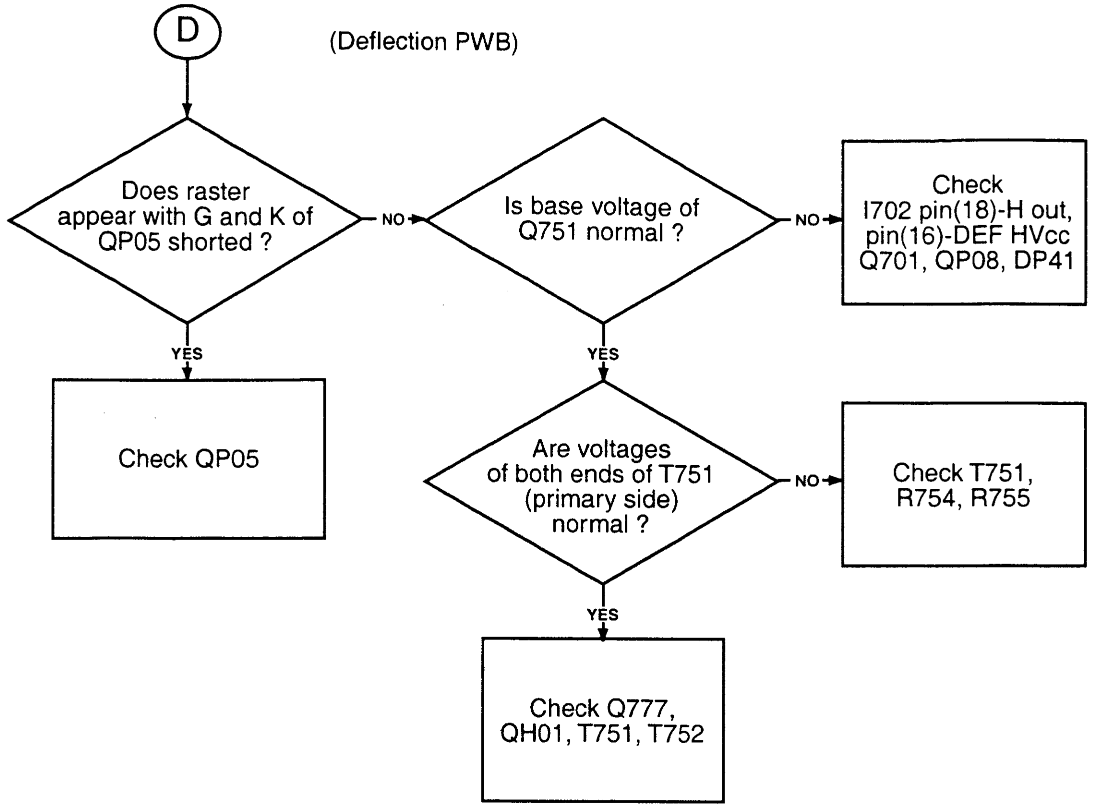
1. No raster and no power (REPAIR METHOD)

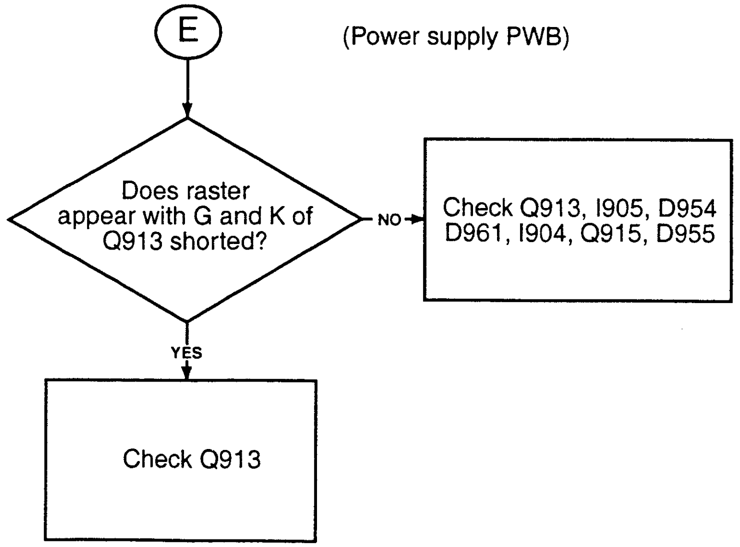

No raster
Is Power Indicator Red LED "ON"? DM03 (CONTROL)
NO
Check DIAGNOSIS Red LED (POWER)
YES
Is click sound of relay heard? S901
A
NO
YES
Check DIAGNOSIS Red LED (DEFLECTION)
Is Red LED "BLINK"? PROTECTION DP06 (DEF.)
B
NO
Is Red LED "BLINK"? PROTECTION D908 (POW.)
NO
C
YES
1. Turn OFF power SW.
2. Turn ON again after several minutes, and carefully observe All green LED's.
YES
1. Turn OFF power SW.
2. Turn ON again after several seconds, and carefully observe All green LED's.
How to check DIAGNOSIS LED's
Did 5 green LED's turn OFF same time?
NO
Did 5 green LED's turn OFF same time?
YES
D
YES
E
Find which LED's going to dark or OFF. (Other LED's are going to OFF little bit later or same time.)
(DEF) DP22(+130V) Check EP98, DP11, Q777,QH01 TH01,DH11 etc.
(DEF) DP15(+13V) Check EP94, IP03, Vert. Output I601, Q655,Q656 etc.
(DEF) DP16(-13V) Check EP95, QP01, Vert. Output I601, QK01,UKDG etc.
(DEF) DP20(+28V) Check EP96, DP12, IK04, IK05, etc.
(DEF) DP21(-28V) Check EP97, DP13, IK04, IK05, etc.
(POW) D971(TV5V) Check D914,I914, Q914, etc.
(POW) D930(TV9V) Check D914,I908, Q914, etc.
(POW) D928,(+12V) Check Standby +12V line D914, I907, Q001, I001 etc.
(POW) D919 (Audio F+28V) Check +28V line E994,D911, I401, I403 etc.
(POW) D920 (Audio R+21V) Check +21V line E995,D912, I402, etc.


A
(Signal PWB)
Is Voltage at pin (61) of I001 5V?
NO
Check Q009, D010 L002, L005
YES
Is Voltage at pin (53) of I001 "H" ?
NO
Is Voltage at pin (33) of I001 "AC CLOCK in" ?
NO
Check Q015, Q014 I906, D909
YES
Check Q008, D960 S901
YES
Check I001

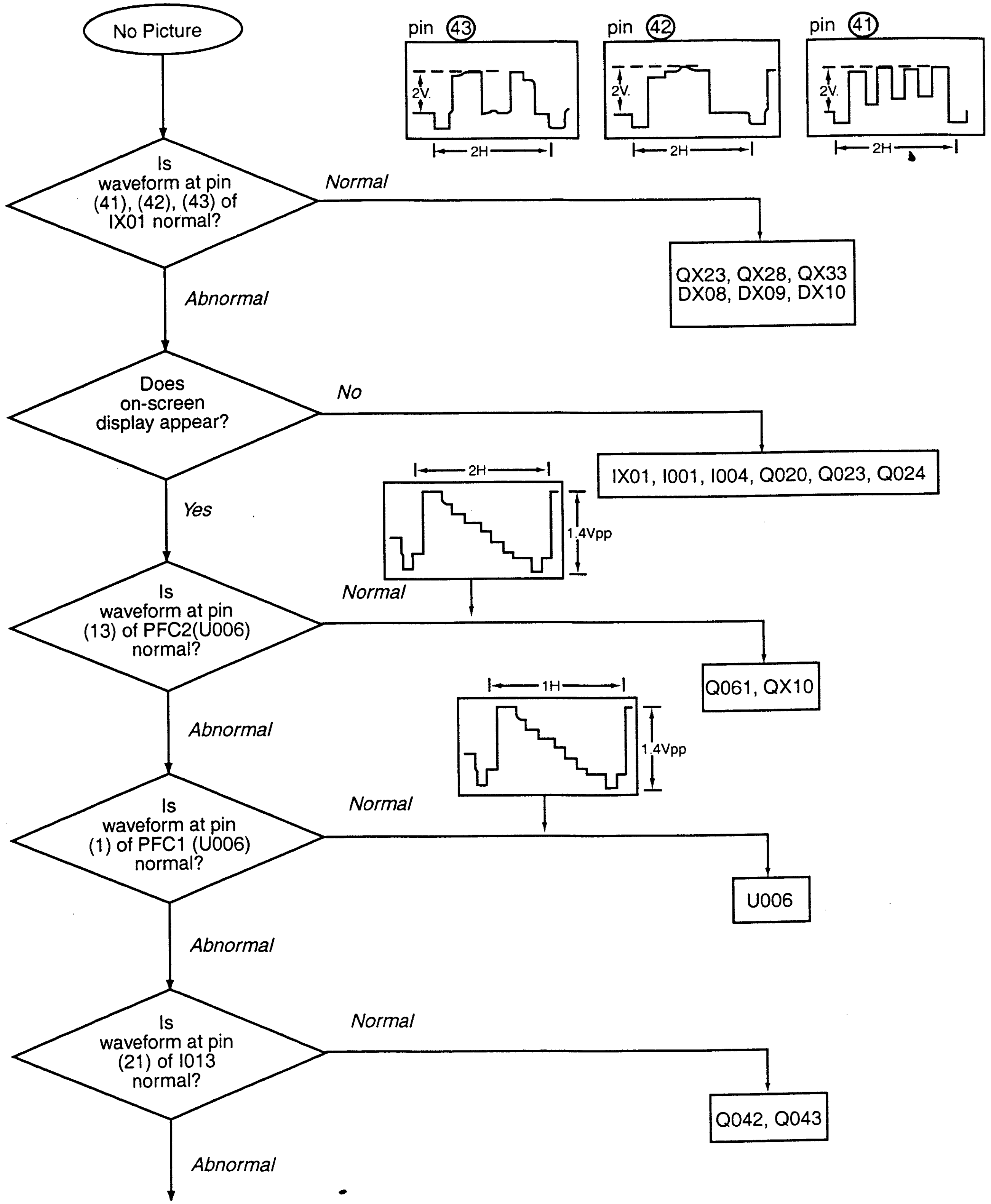

B
(Deflection PWB)
Is Voltage at pin(5) of IP01 21V - 24V ?
NO
Check DP02, RP05, RP06, CP05
YES
Has protector EP91 blown
NO
Check IP01
YES
Check IP01, DP04 Replace EP91

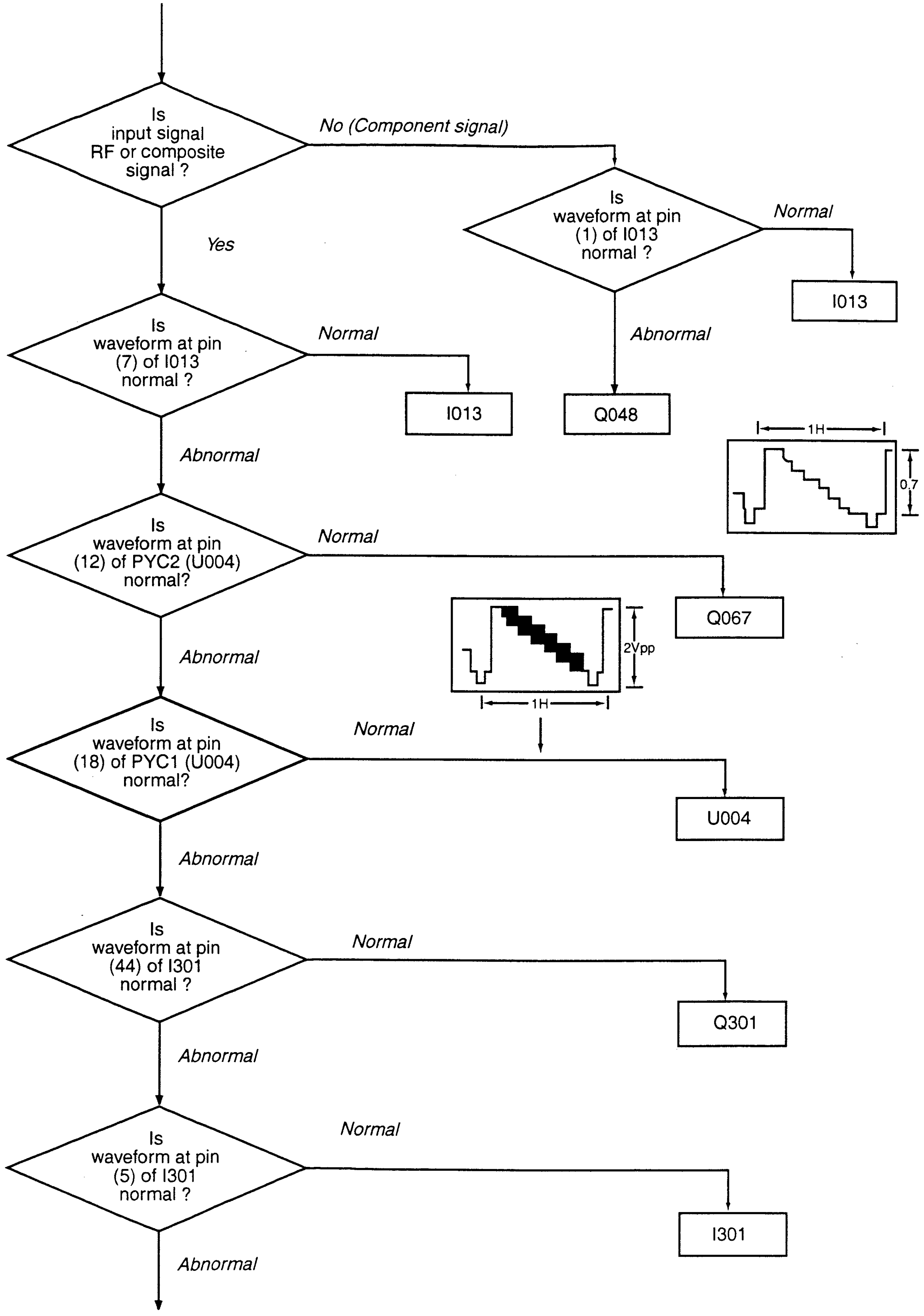

C
(Power supply PWB)
Is Voltage at pin(5) of I901 21V - 24V ?
NO
Check D963, R907, R908, C914
YES
Has protector E992 blown
NO
Check I901
YES
Check I901, D961 Replace E992

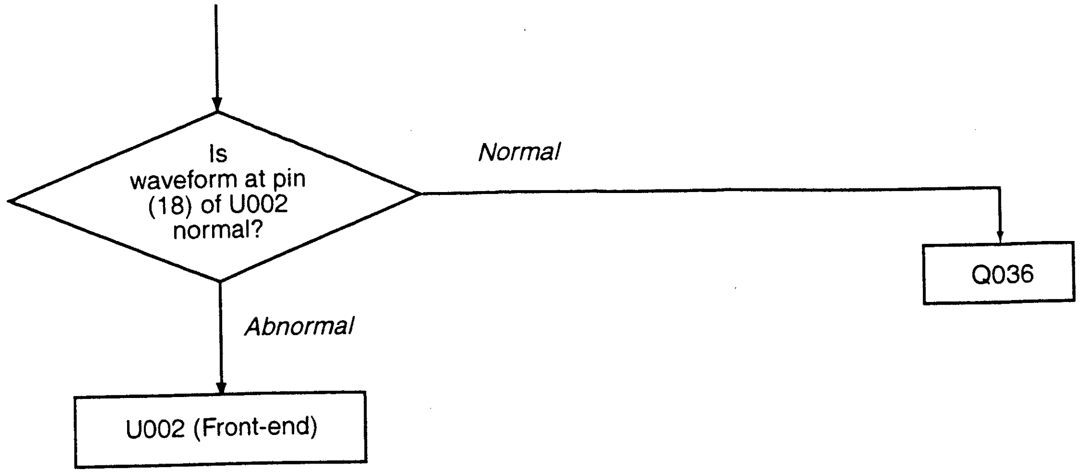

(Deflection PWB)
D
Does raster appear with G and K of QP05 shorted ?
NO
YES
Check QP05
Is base voltage of Q751 normal ?
NO
YES
Check I702 pin(18)-H out, pin(16)-DEF HVcc Q701, QP08, DP41
Are voltages of both ends of T751 (primary side) normal ?
NO
YES
Check T751, R754, R755
Check Q777, QH01, T751, T752


(Power supply PWB)
E
Does raster appear with G and K of Q913 shorted?
NO
YES
Check Q913, I905, D954 D961, I904, Q915, D955
Check Q913

2.No Picture

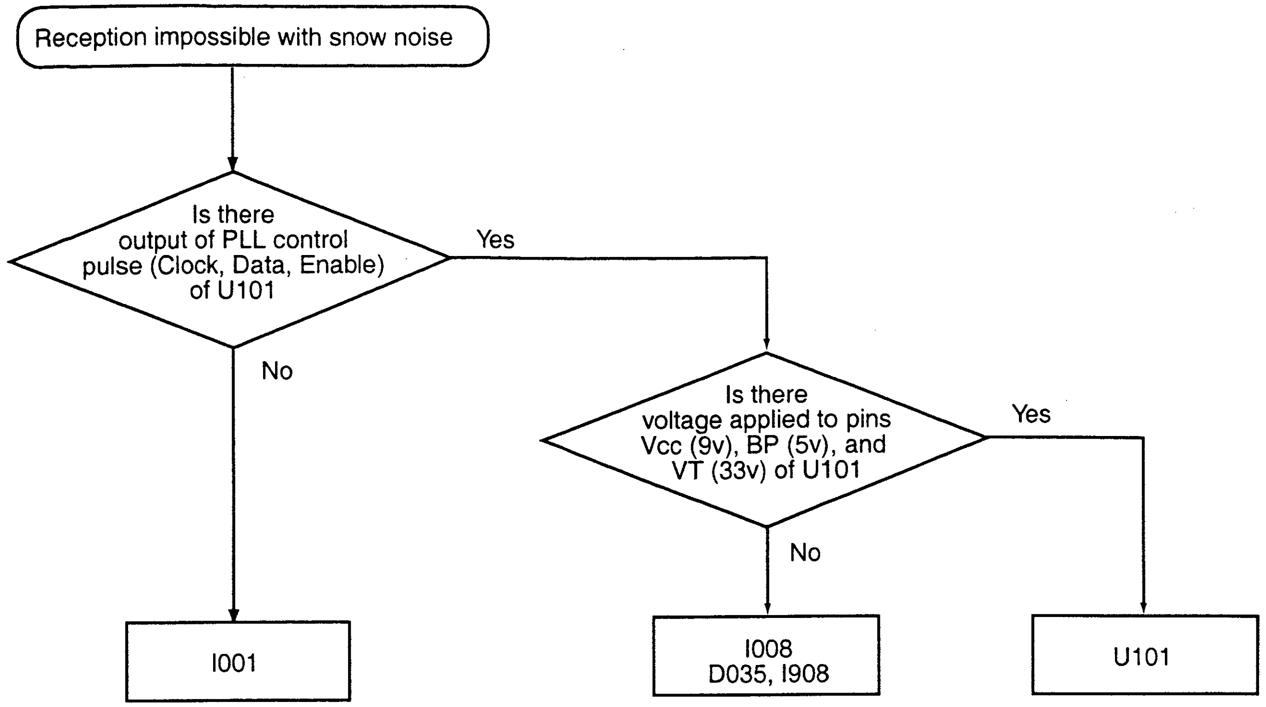

No Picture
pin ㊸
pin ㊷
pin ㊶
2V.
2H
Is waveform at pin (41), (42), (43) of IX01 normal?
Normal
QX23, QX28, QX33 DX08, DX09, DX10
Abnormal
Does on-screen display appear?
No
IX01, I001, I004, Q020, Q023, Q024
Yes
2H
1.4Vpp
Is waveform at pin (13) of PFC2(U006) normal?
Normal
Q061, QX10
Abnormal
1H
1.4Vpp
Is waveform at pin (1) of PFC1 (U006) normal?
Normal
U006
Abnormal
Is waveform at pin (21) of I013 normal?
Normal
Q042, Q043
Abnormal


Is input signal RF or composite signal ?
No (Component signal)
Is waveform at pin (1) of I013 normal ?
Normal
I013
Abnormal
Q048
Yes
Is waveform at pin (7) of I013 normal ?
Normal
I013
Abnormal
1H
0.7
Is waveform at pin (12) of PYC2 (U004) normal?
Normal
Q067
2Vpp
1H
Abnormal
Is waveform at pin (18) of PYC1 (U004) normal?
Normal
U004
Abnormal
Is waveform at pin (44) of I301 normal ?
Normal
Q301
Abnormal
Is waveform at pin (5) of I301 normal ?
Normal
I301
Abnormal

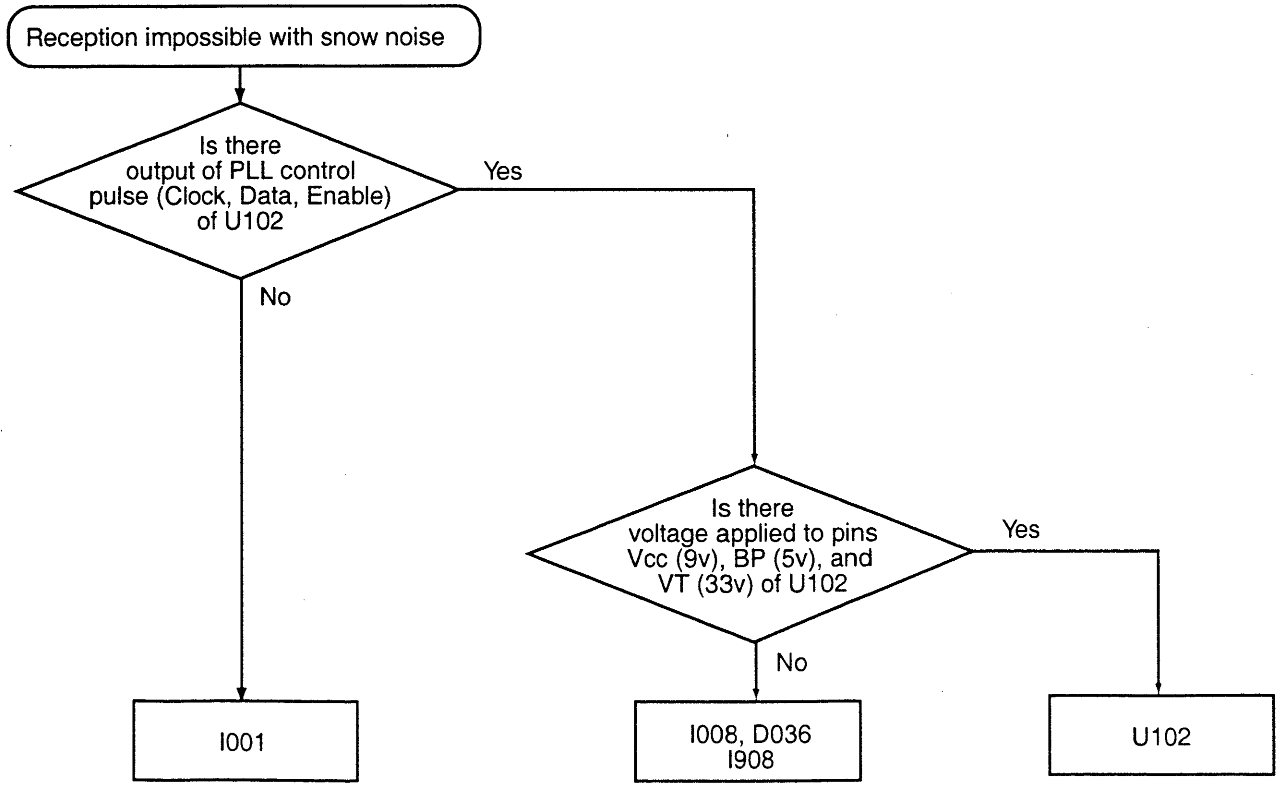

Is waveform at pin (18) of U002 normal?
Normal
Q036
Abnormal
U002 (Front-end)

3. Reception impossible with snow noise

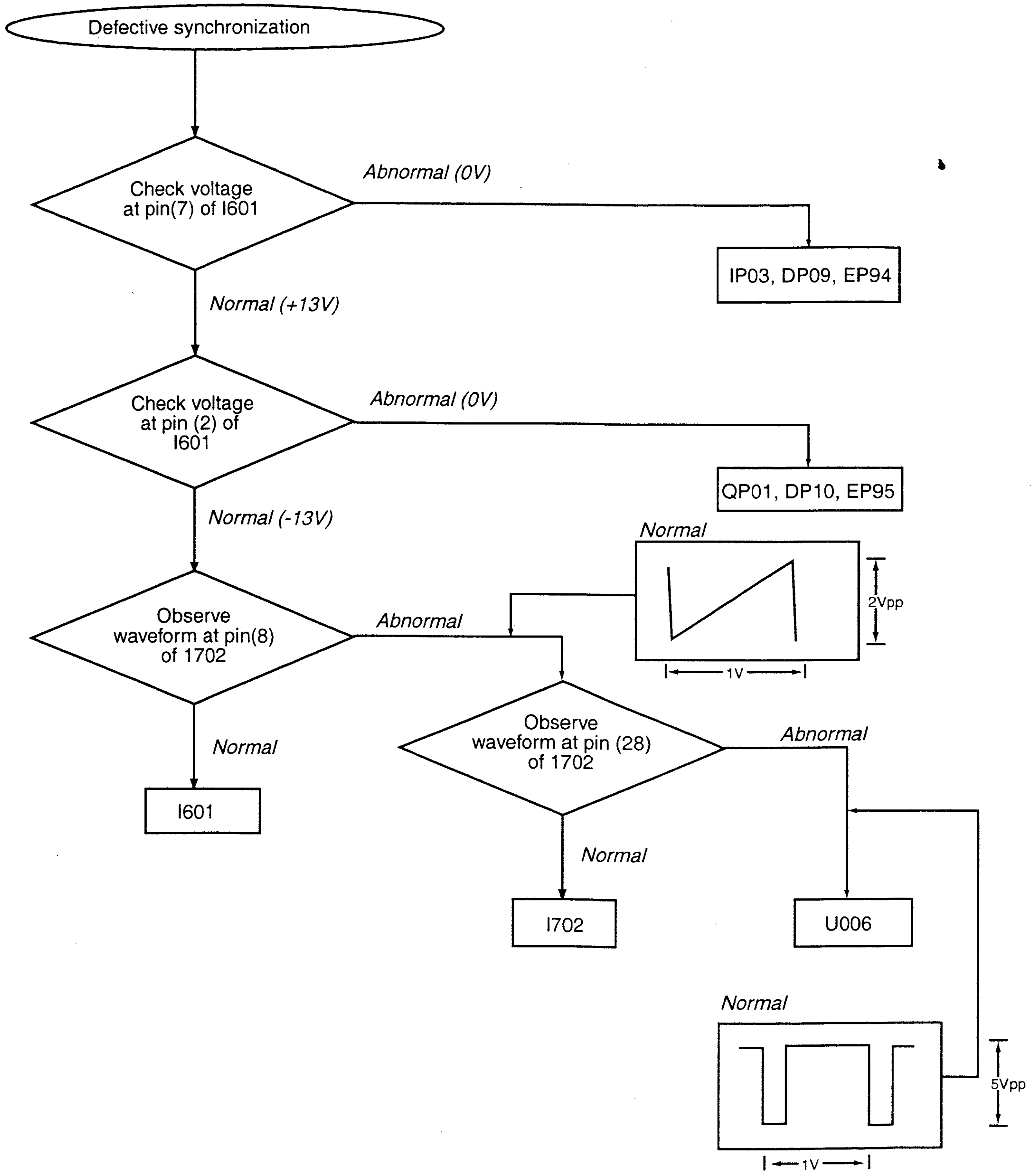
ANT A


Reception impossible with snow noise
Is there output of PLL control pulse (Clock, Data, Enable) of U101
Yes
No
Is there voltage applied to pins Vcc (9v), BP (5v), and VT (33v) of U101
Yes
No
I001
I008 D035, I908
U101

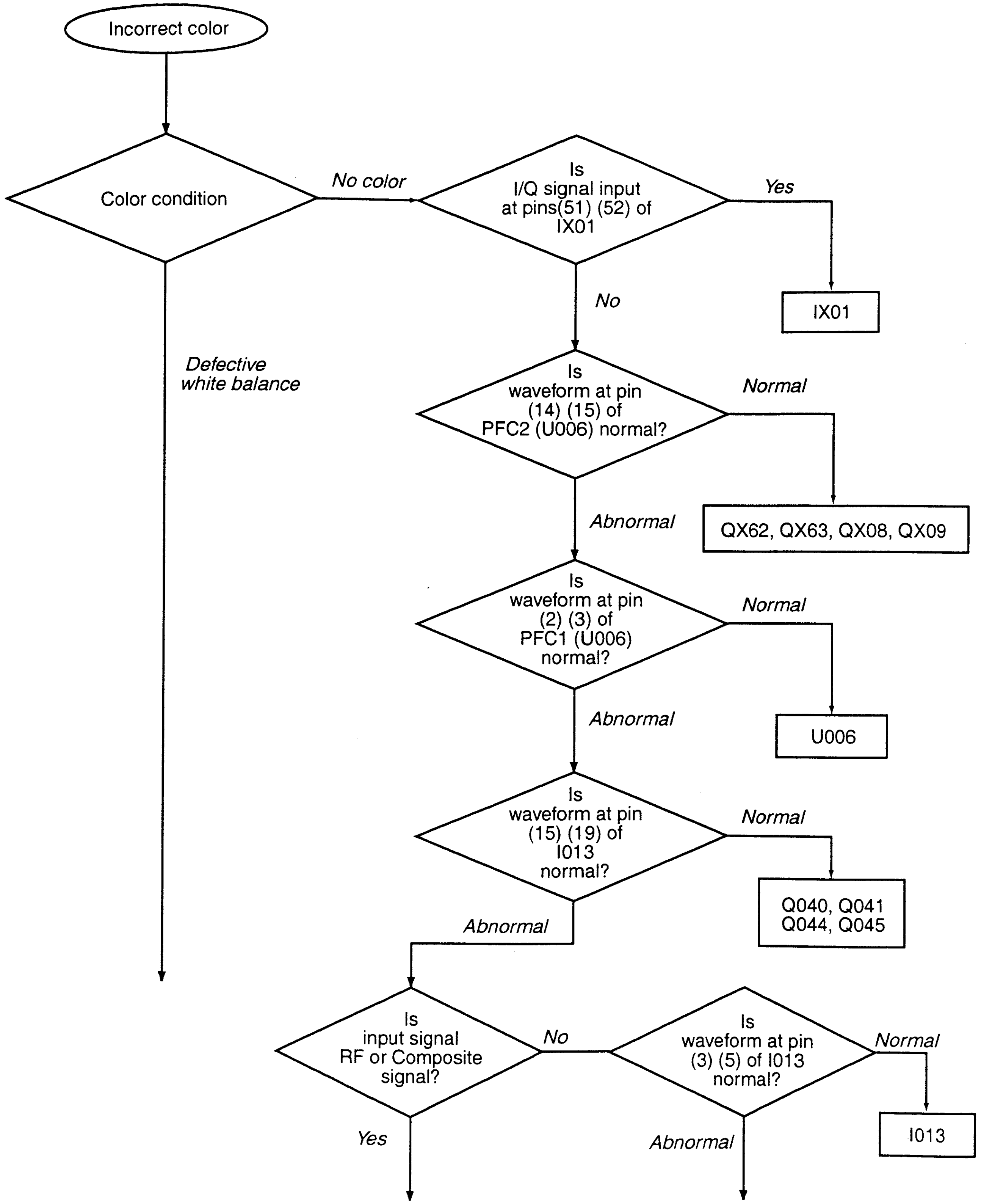
ANT B

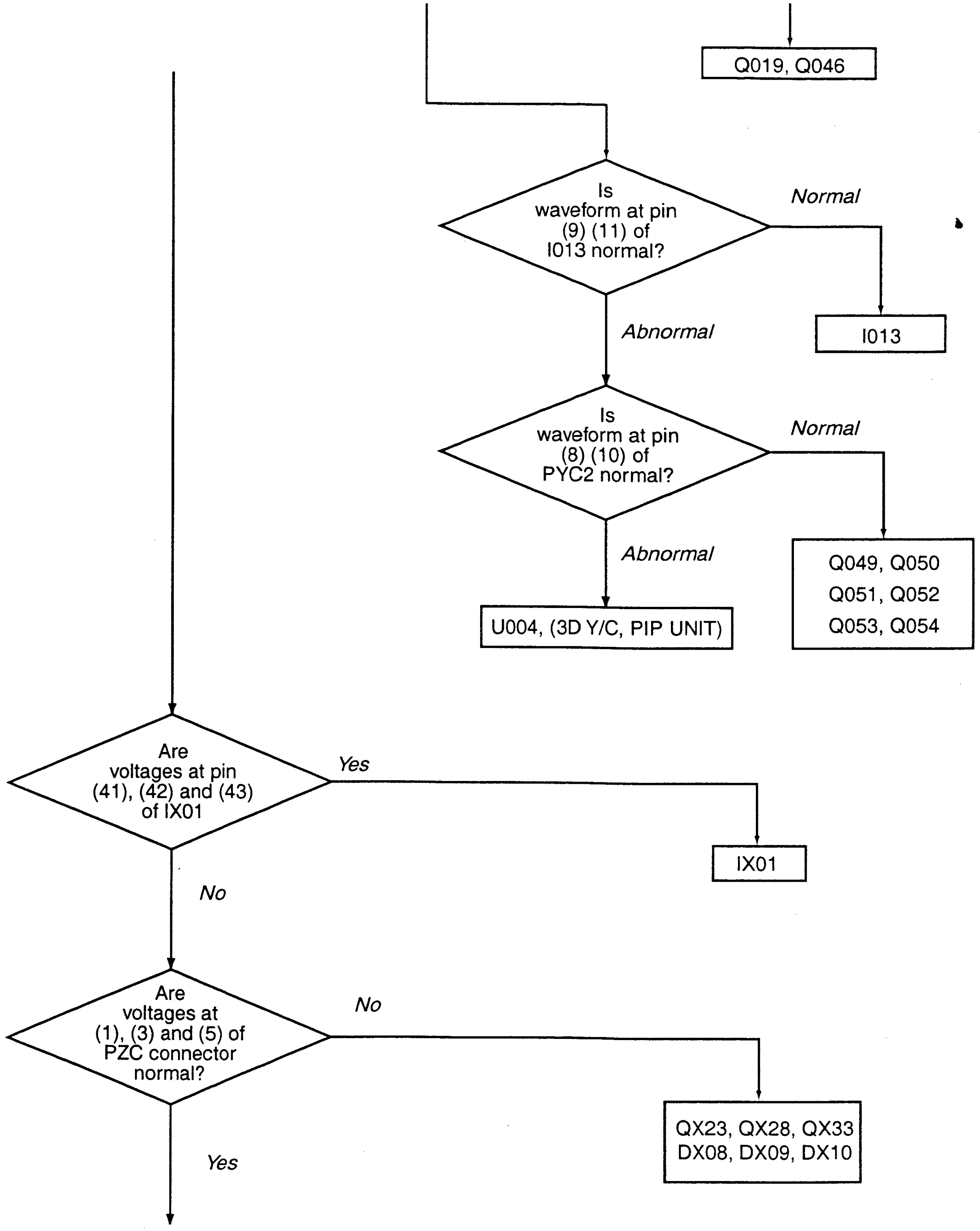

Reception impossible with snow noise
Is there output of PLL control pulse (Clock, Data, Enable) of U102
Yes
No
Is there voltage applied to pins Vcc (9v), BP (5v), and VT (33v) of U102
Yes
No
I001
I008, D036 I908
U102

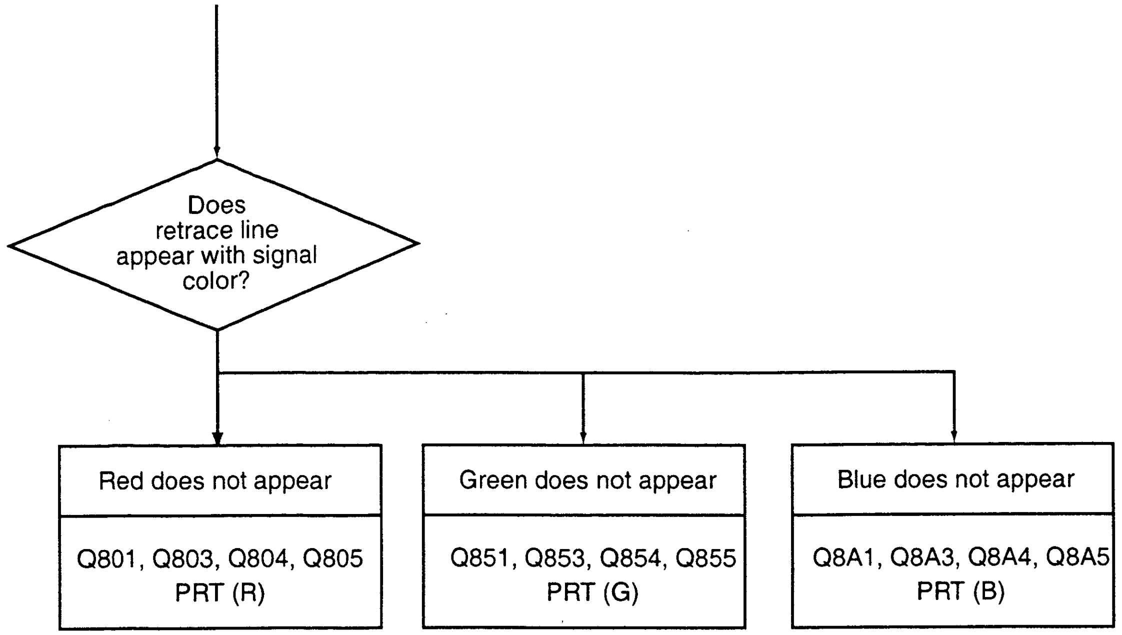
4. Defective synchronization


Defective synchronization
Check voltage at pin(7) of I601
Abnormal (0V)
IP03, DP09, EP94
Normal (+13V)
Check voltage at pin (2) of I601
Abnormal (0V)
QP01, DP10, EP95
Normal (-13V)
Normal
2Vpp
1V
Observe waveform at pin(8) of 1702
Abnormal
Normal
I601
Observe waveform at pin (28) of 1702
Abnormal
Normal
I702
U006
Normal
5Vpp
1V

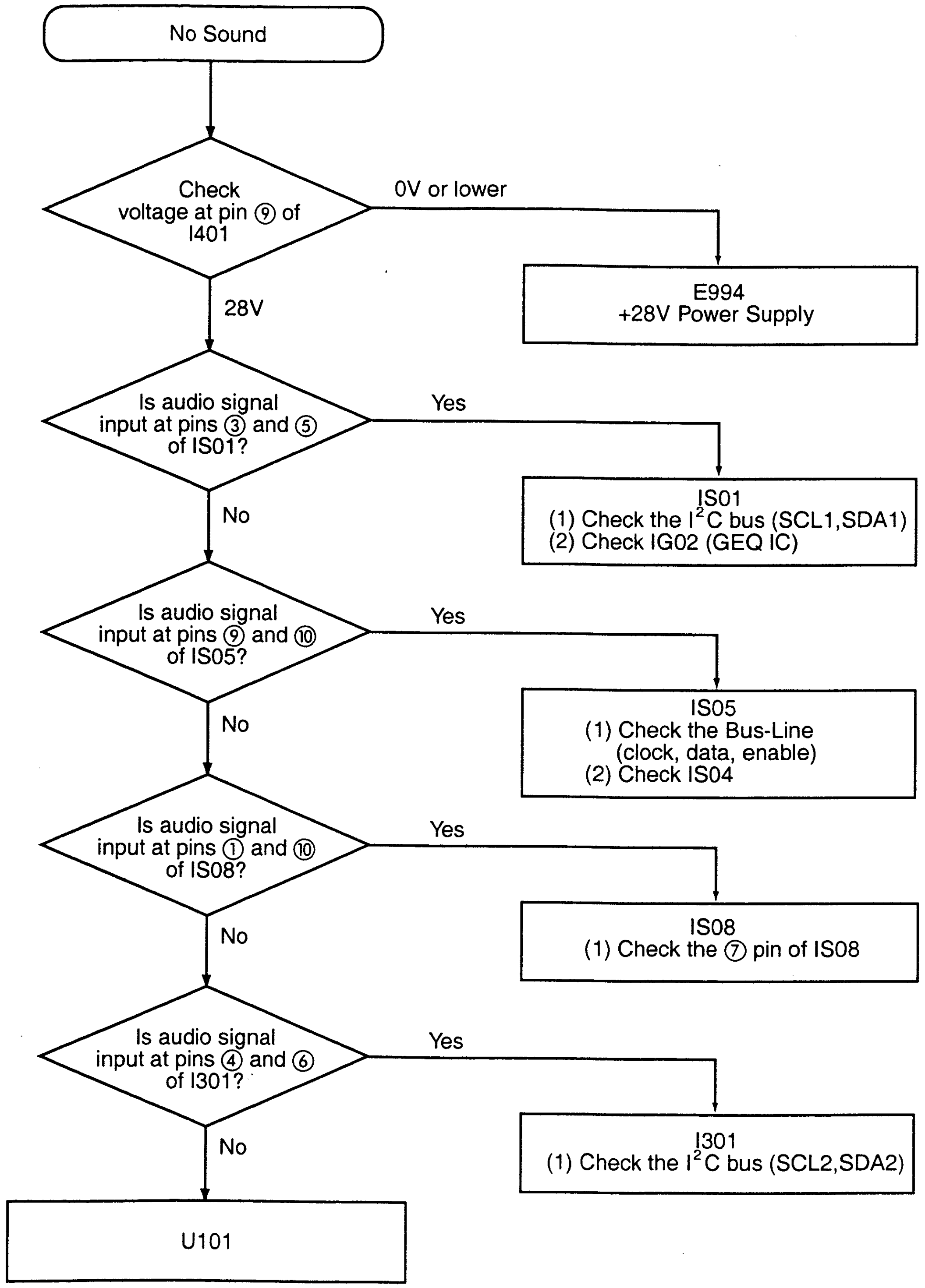
5. Incorrect color


Incorrect color
Color condition
No color
Defective white balance
Is I/Q signal input at pins(51) (52) of IX01
Yes
IX01
No
Is waveform at pin (14) (15) of PFC2 (U006) normal?
Normal
QX62, QX63, QX08, QX09
Abnormal
Is waveform at pin (2) (3) of PFC1 (U006) normal?
Normal
U006
Abnormal
Is waveform at pin (15) (19) of I013 normal?
Normal
Q040, Q041
Q044, Q045
Abnormal
Is input signal RF or Composite signal?
Yes
No
Is waveform at pin (3) (5) of I013 normal?
Normal
I013
Abnormal


Q019, Q046
Is waveform at pin (9) (11) of I013 normal?
Normal
I013
Abnormal
Is waveform at pin (8) (10) of PYC2 normal?
Normal
Q049, Q050
Q051, Q052
Q053, Q054
Abnormal
U004, (3D Y/C, PIP UNIT)
Are voltages at pin (41), (42) and (43) of IX01
Yes
IX01
No
Are voltages at (1), (3) and (5) of PZC connector normal?
No
QX23, QX28, QX33
DX08, DX09, DX10
Yes


Does retrace line appear with signal color?
Red does not appear
Q801, Q803, Q804, Q805 PRT (R)
Green does not appear
Q851, Q853, Q854, Q855 PRT (G)
Blue does not appear
Q8A1, Q8A3, Q8A4, Q8A5 PRT (B)

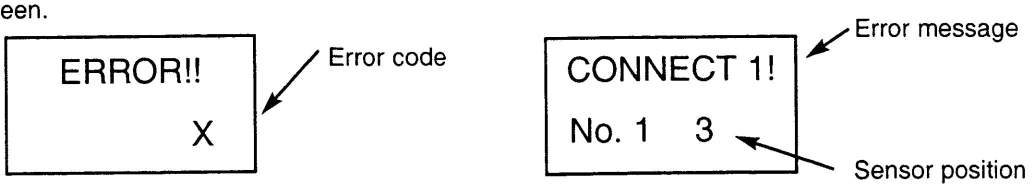
6. No sound (when Surround off)


No Sound
Check voltage at pin ⑨ of I401
0V or lower
E994 +28V Power Supply
28V
Is audio signal input at pins ③ and ⑤ of IS01?
Yes
IS01
(1) Check the I²C bus (SCL1,SDA1)
(2) Check IG02 (GEQ IC)
No
Is audio signal input at pins ⑨ and ⑩ of IS05?
Yes
IS05
(1) Check the Bus-Line (clock, data, enable)
(2) Check IS04
No
Is audio signal input at pins ① and ⑩ of IS08?
Yes
IS08
(1) Check the ⑦ pin of IS08
No
Is audio signal input at pins ④ and ⑥ of I301?
Yes
I301
(1) Check the I²C bus (SCL2,SDA2)
No
U101

7. Convergence Errors.

If an error message or code appears while performing MAGIC FOCUS or initialize (MOVE, PIP CH in service mode) follow this confirmation and repair method.

1. Turn on power and receive any signal.
2. Press service switch on Power/Deflection board.
3. Press "SWAP" then "PIP CH" on remote control.
4. Error code will be displayed in bottom right corner of screen. If there is no error, an "INITIAL OK" message will be appear on screen.


ERROR!!
X
Error code
CONNECT 1!
No. 1 3
Error message
Sensor position

5. Follow repair table for errors.

DCU REPAIR TABLE

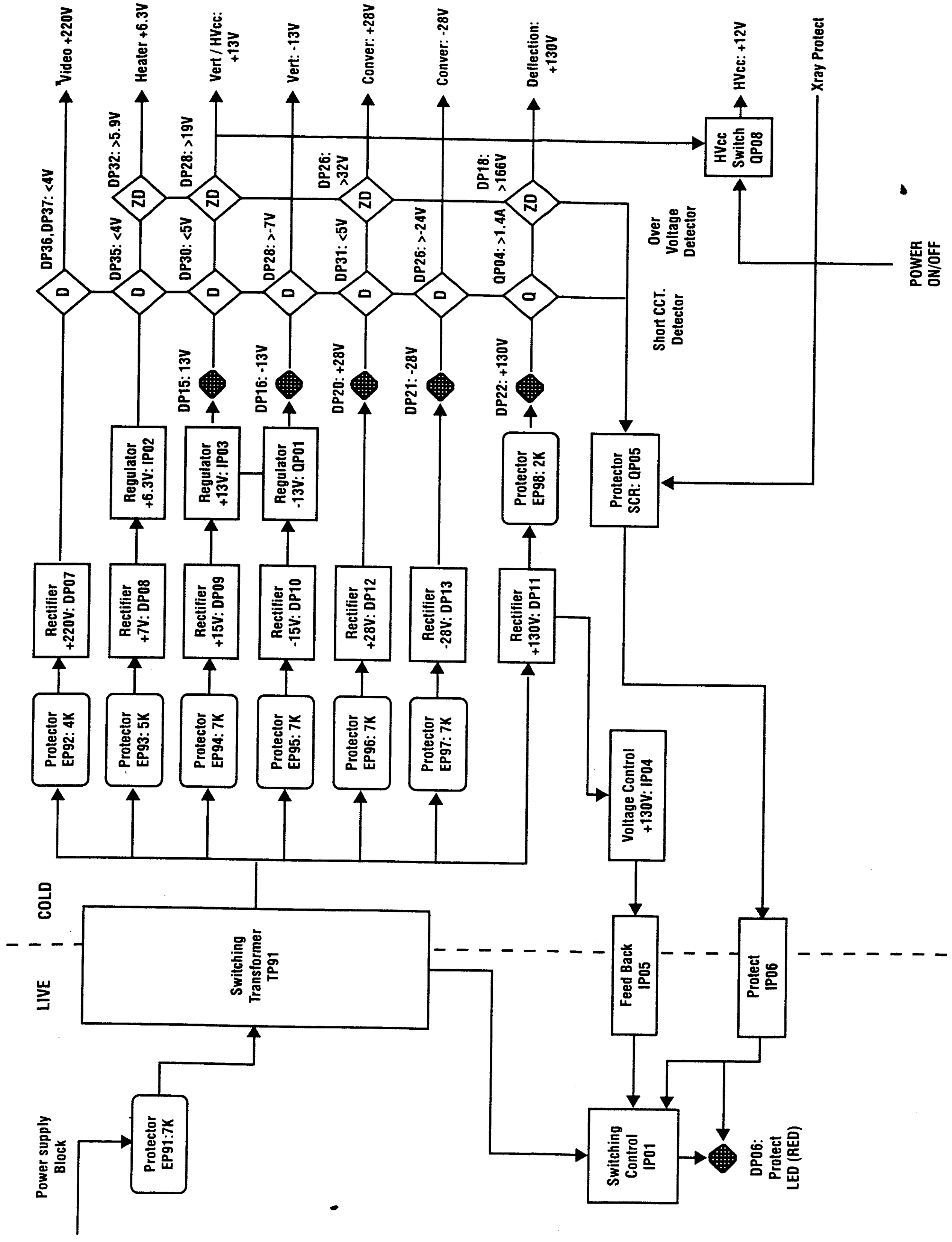
Error Code	Error Display Code	Countermeasure	Application	
			Initialize	Magic Focus
1	VF Error	Replace DCU	X	X
2 *2	Connect 1	1. Darken Outside Light 2. Placing of sensor 3. Is pattern hitting sensor 4. Check connection and solder bridge of sensor 5. Replace sensor 6. Replace sernsor P.W.B. 7. Sensor Connector check 8. Replace DCU 9. Adjustment check (H/V size, centering)	X	- -
3*2	A/D Level	Same as Error Code 2	X	X
4	Over Flow	1. Check the placement of sensor 2. Adjustment check (H/V size, centering) 3. Conv. amp. gain check *1 (check resistor values only)	X	X
5	Convergence	Same as Error Code 4	X	X
7	Operation	Same as Error Code 4	- -	X
9	Connect 2	Same as Error Code 2	X	X
10	Noise	Input strong field strong signal Check the wiring of connextor between sensor and DCU	X	X
11	Sync	Input strong field strength signal Input standard signal NTSC	X	X

*1 -- RK 42, 46, 50, 54, 58, 62 check these resistors.

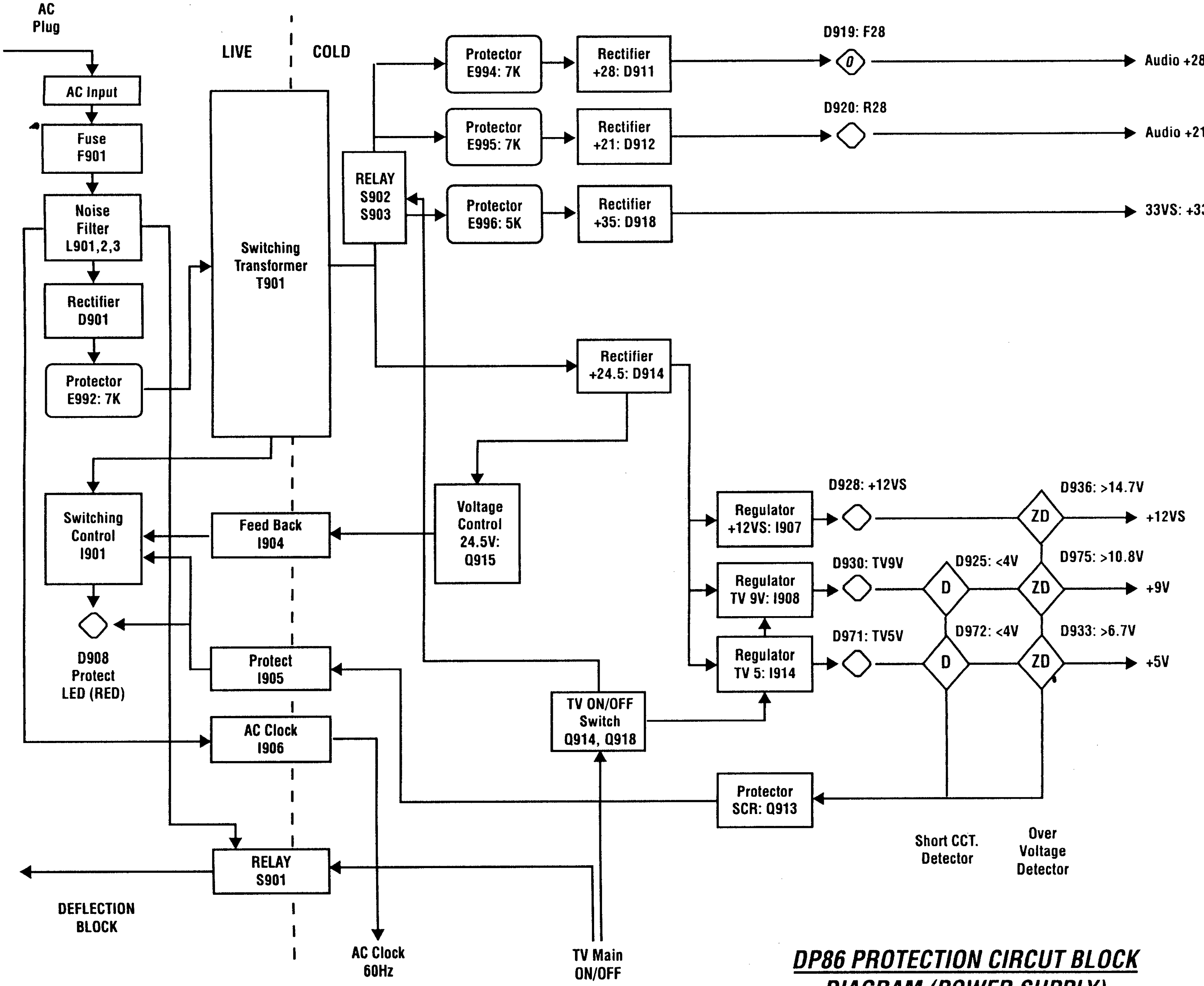
*2 Sensor Position

0	1	2
7		3
6	5	4

(View from side)

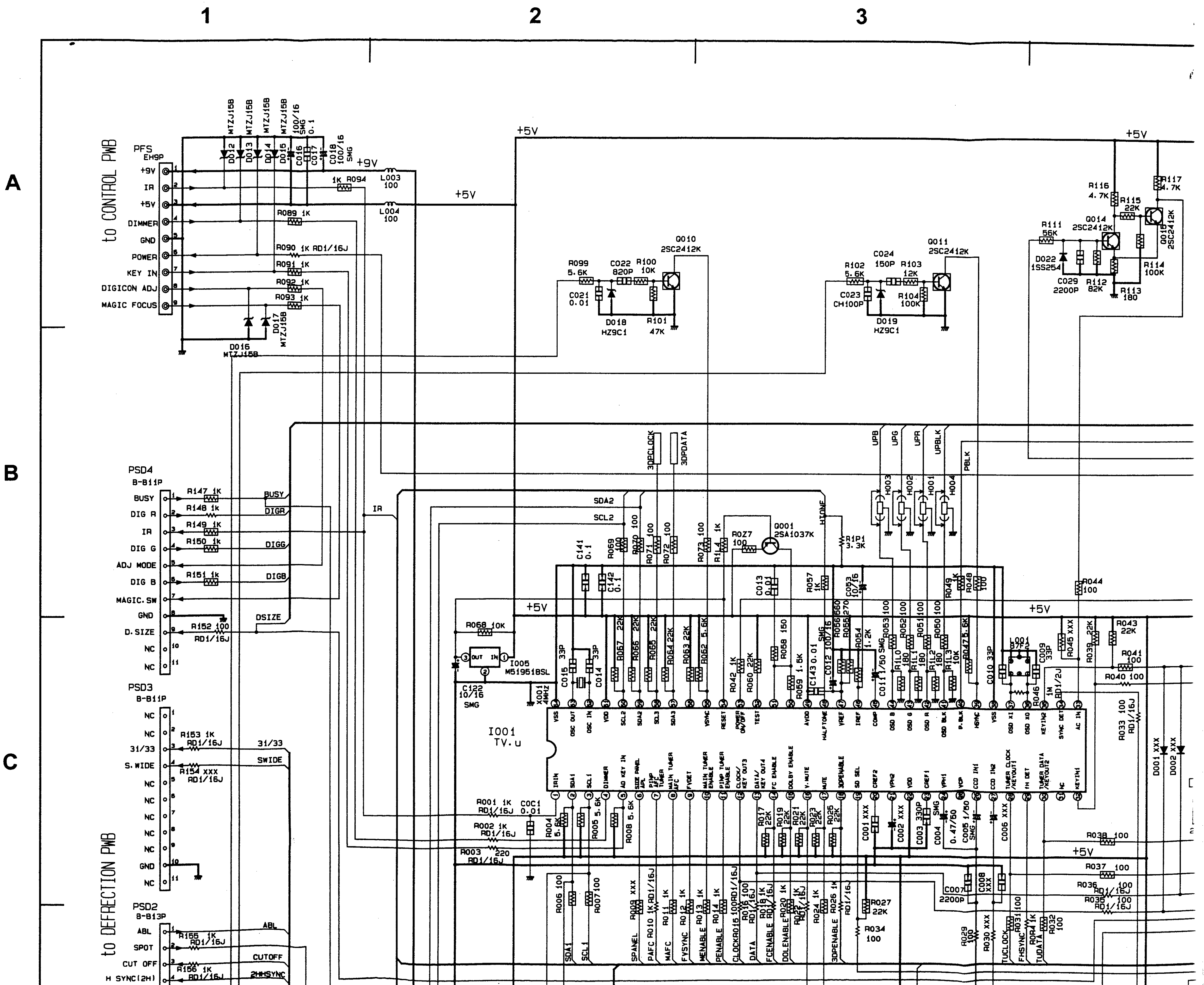

Video +220V
Heater +6.3V
Vert / HVcc: +13V
Vert: -13V
Conver: +28V
Conver: -28V
Deflection: +130V
HVcc: +12V
Xray Protect
DP36,DP37: <4V
DP32: >5.9V
DP28: >19V
DP26: >32V
DP18: >166V
ZD
HVcc Switch QP08
Over Voltage Detector
POWER ON/OFF
DP35: <4V
DP30: <5V
DP28: >-7V
DP31: <5V
DP26: >-24V
QP04: >1.4A
D
Q
Short CCT. Detector
DP15: 13V
DP16: -13V
DP20: +28V
DP21: -28V
DP22: +130V
Regulator +6.3V: IP02
Regulator +13V: IP03
Regulator -13V: QP01
Protector EP98: 2K
Protector SCR: QP05
Rectifier +220V: DP07
Rectifier +7V: DP08
Rectifier +15V: DP09
Rectifier -15V: DP10
Rectifier +28V: DP12
Rectifier -28V: DP13
Rectifier +130V: DP11
Protector EP92: 4K
Protector EP93: 5K
Protector EP94: 7K
Protector EP95: 7K
Protector EP96: 7K
Protector EP97: 7K
Voltage Control +130V: IP04
COLD
LIVE
Switching Transformer TP91
Feed Back IP05
Protect IP06
Power supply Block
Protector EP91:7K
Switching Control IP01
DP06: Protect LED (RED)

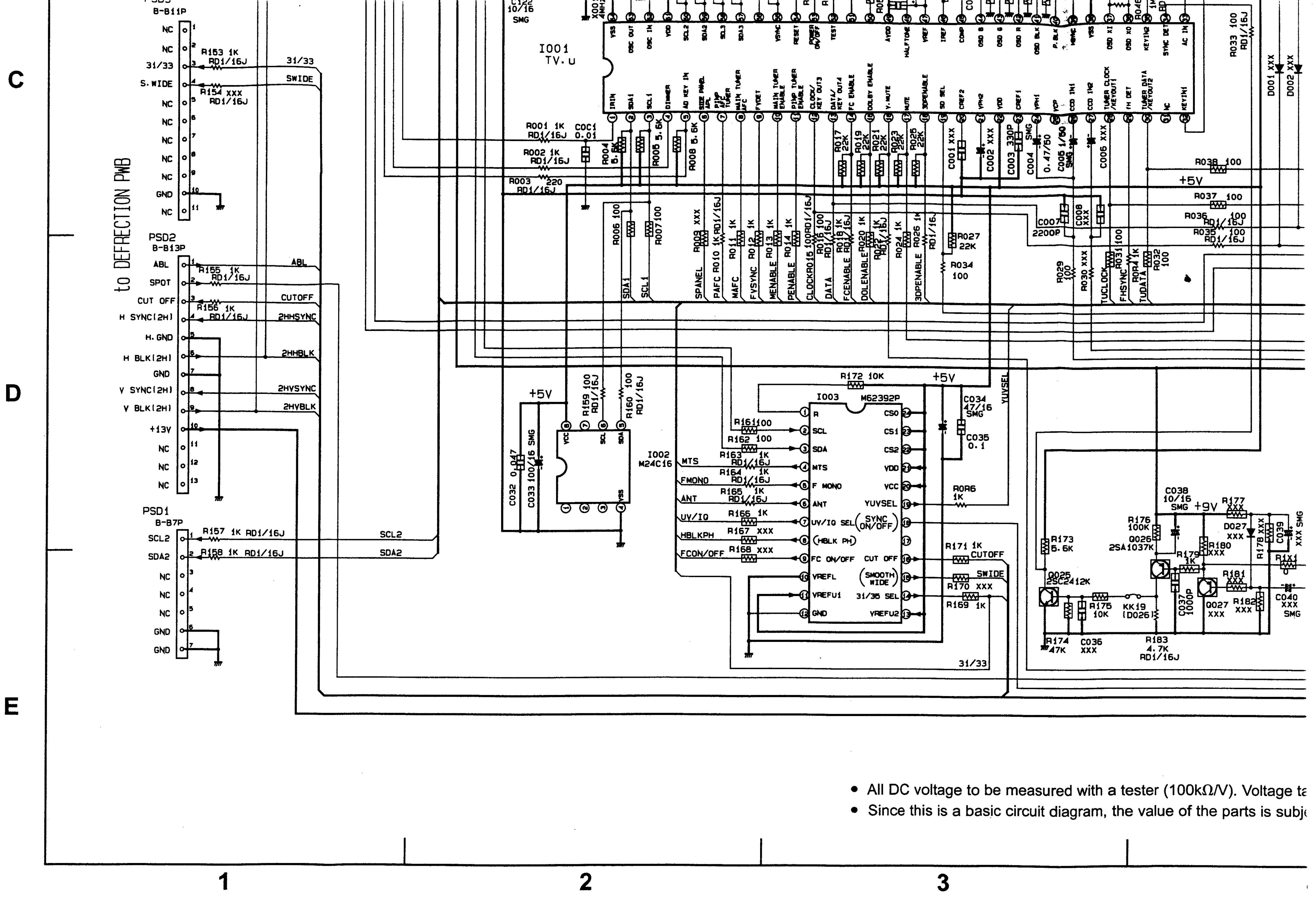
DP86/85/85T PROTECTION CIRCUT BLOCK DIAGRAM (DEFLECTION)


AC Plug
LIVE
COLD
AC Input
Fuse F901
Noise Filter L901,2,3
Rectifier D901
Protector E992: 7K
Switching Transformer T901
RELAY S902 S903
Protector E994: 7K
Protector E995: 7K
Protector E996: 5K
Rectifier +28: D911
Rectifier +21: D912
Rectifier +35: D918
D919: F28
D920: R28
Audio +28
Audio +21
33VS: +3
Rectifier +24.5: D914
Voltage Control 24.5V: Q915
Switching Control I901
Feed Back I904
Protect I905
AC Clock I906
RELAY S901
D908 Protect LED (RED)
DEFLECTION BLOCK
AC Clock 60Hz
TV Main ON/OFF
TV ON/OFF Switch Q914, Q918
Regulator +12VS: I907
Regulator TV 9V: I908
Regulator TV 5: I914
Protector SCR: Q913
D928: +12VS
D930: TV9V
D971: TV5V
D925: <4V
D972: <4V
D936: >14.7V
D975: >10.8V
D933: >6.7V
D
ZD
+12VS
+9V
+5V
Short CCT. Detector
Over Voltage Detector

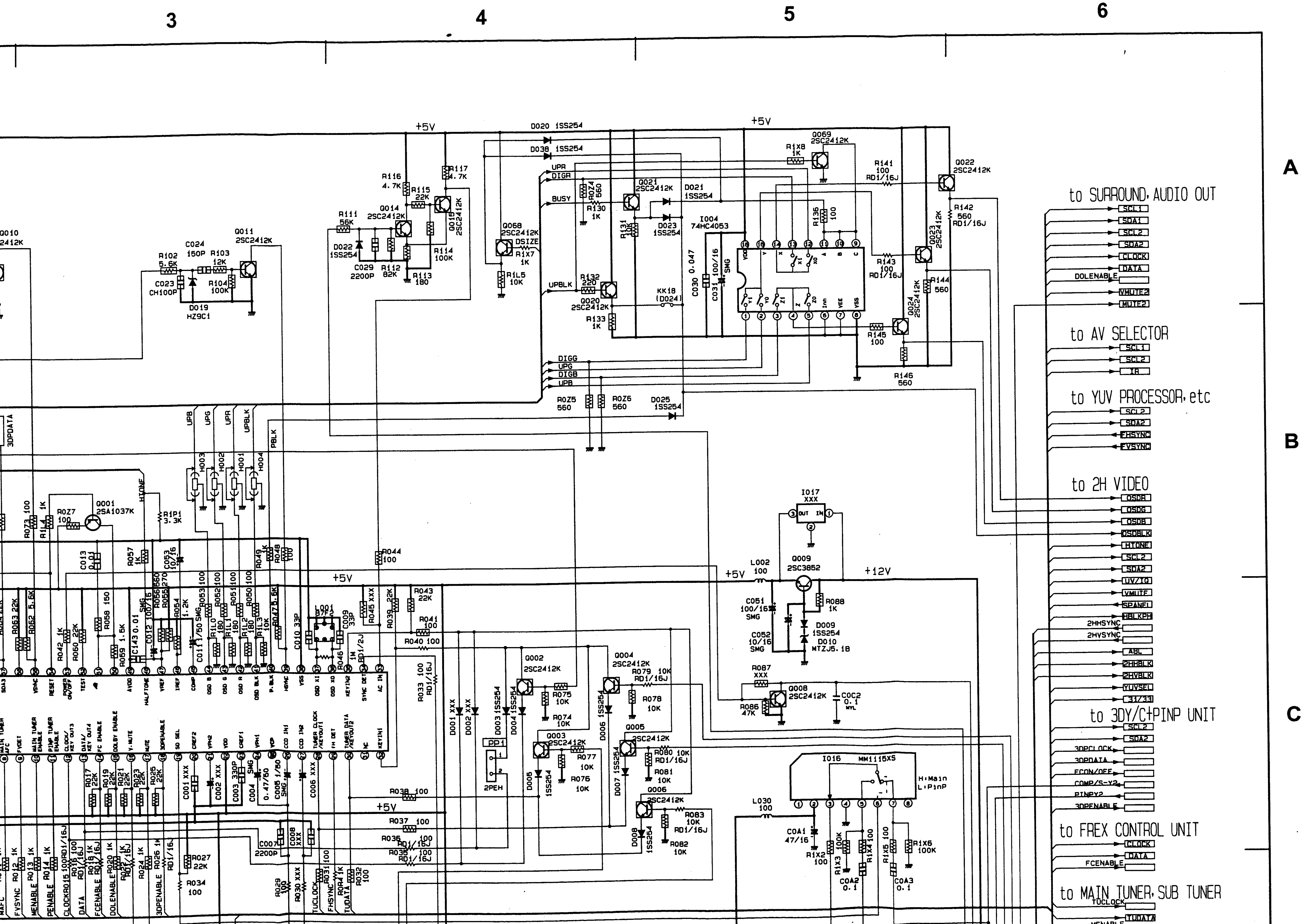
DP86 PROTECTION CIRCUT BLOCK DIAGRAM (POWER SUPPLY)

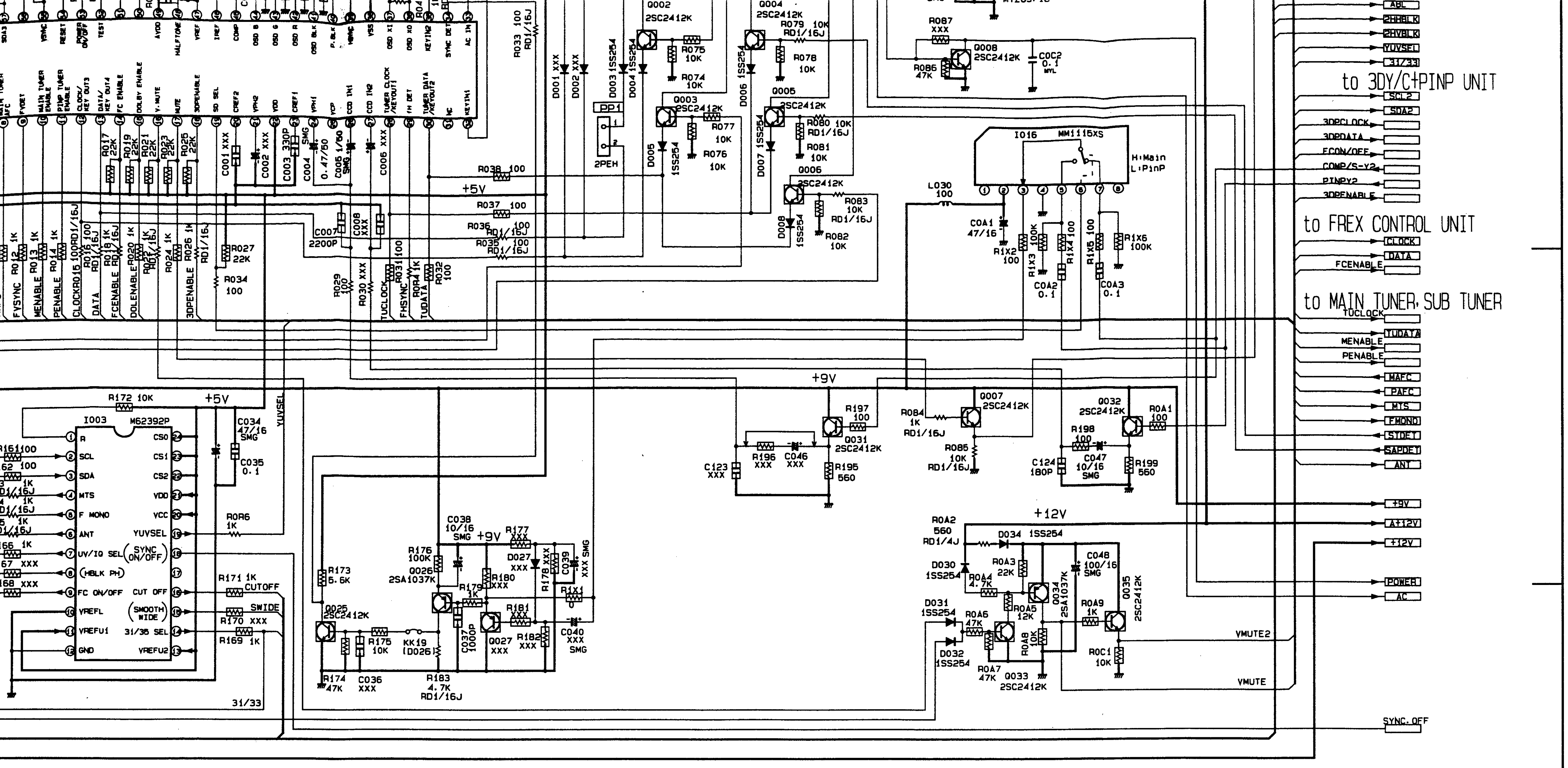
Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
A
B
C
to CONTROL PWB
PFS
EH9P
+9V
IR
+5V
DIMMER
GND
POWER
KEY IN
DIGICON ADJ
MAGIC FOCUS
D012 MTZJ15B
D013 MTZJ15B
D014 MTZJ15B
D015 MTZJ15B
C016 100/16 SMG
C017 0.1
C018 100/16 SMG
D016 MTZJ15B
D017 MTZJ15B
+9V
+5V
R094 1K
L003 100
L004 100
R089 1K
R090 1K RD1/16J
R091 1K
R092 1K
R093 1K
Q010 2SC2412K
Q011 2SC2412K
Q014 2SC2412K
Q016 2SC2412K
R099 5.6K
C021 0.01
C022 820P
R100 10K
R101 47K
D018 HZ9C1
R102 5.6K
C023 CH100P
C024 150P
R103 12K
R104 100K
D019 HZ9C1
R111 56K
D022 1SS254
C029 2200P
R112 82K
R113 180
R114 100K
R115 22K
R116 4.7K
R117 4.7K
PSD4
B-B11P
BUSY
DIG R
IR
DIG G
ADJ MODE
DIG B
MAGIC.SW
GND
D.SIZE
NC
R147 1K
R148 1K
R149 1K
R150 1K
R151 1K
R152 100 RD1/16J
BUSY
DIGR
DIGG
DIGB
DSIZE
IR
PSD3
B-B11P
31/33
S.WIDE
R153 1K RD1/16J
R154 XXX RD1/16J
SWIDE
to DEFRECTION PWB
PSD2
B-B13P
ABL
SPOT
CUT OFF
H SYNC(2H)
R155 1K RD1/16J
R156 1K RD1/16J
CUTOFF
2HHSYNC
3DPCLOCK
3DPDATA
SDA2
SCL2
Q001 2SA1037K
R027 100
R1P1 3.3K
HTONE
UPB
UPG
UPR
UPBLK
PBLK
H003
H002
H001
H004
I005 M51951BSL
OUT IN
R068 10K
C122 10/16 SMG
X001 4MHz
I001 TV.u
L001 87F3
R044 100
R045 XXX
R039 22K
R043 22K
R041 100
R040 100
R033 100 RD1/16J
D001 XXX
D002 XXX
R038 100
R037 100
R036 100 RD1/16J
R035 100 RD1/16J
C007 2200P
C008 XXX
R027 22K
R034 100
R001 1K RD1/16J
C001 0.01
R002 1K RD1/16J
R003 220 RD1/16J
R004 5.6K
R005 5.6K
R008 5.6K
R006 100
R007 100
R009 XXX
SDA1
SCL1
SPANEL
PAFC
MAFC
FYSYNC
MENABLE
PENABLE
CLOCK
DATA
FCENABLE
DOLENABLE
3DPENABLE
TUCLOCK
FHSYNC
TUDATA
VSS
OSC OUT
OSC IN
VDD
SCL2
SDA2
SCL3
SDA3
VSYNC
RESET
POWER ON/OFF
TEST
AVDD
HALFTONE
VREF
IREF
COMP
OSD B
OSD G
OSD R
OSD BLK
P.BLK
HSYNC
OSD XI
OSD XO
KEYIN2
SYNC DET
AC IN
IRIN
SDA1
SCL1
DIMMER
AD KEY IN
SIDE PANEL AFC
PinP AFC TUNER
MAIN TUNER AFC
FVDET
MAIN TUNER ENABLE
PinP TUNER ENABLE
CLOCK/KEY OUT3
DATA/KEY OUT4
FC ENABLE
DOLBY ENABLE
V.MUTE
MUTE
3DPENABLE
SD SEL
CREF2
VPH2
VDD
CREF1
VPH1
VCP
CCD IN1
CCD IN2
TUNER CLOCK/KEYOUT1
FH DET
TUNER DATA/KEYOUT2
NC
KEYIN1
C141 0.1
C142 0.1
C013 0.01
C053 10/16
C012 100/16 SMG
C143 0.01
C011 1/50 SMG
C015 33P
C014 33P
C010 33P
C009 33P
C001 XXX
C002 XXX
C003 330P
C004 SMG
C005 1/50 SMG
C006 XXX
R067 22K
R066 22K
R065 22K
R064 22K
R063 22K
R062 5.6K
R058 150
R059 1.6K
R054 1.2K
R056 560
R055 270
R057 1K
R053 100
R052 100
R051 100
R050 100
R049 1K
R048 100
R047 5.6K
R046 1M RD1/2J
R042 1K
R060 22K
R069 100
R070 100
R071 100
R072 100
R073 100
R114 1K
R1L0 180
R1L1 180
R1L2 180
R1L3 10K
R017 22K
R019 22K
R021 22K
R023 22K
R026 22K
R010 1K RD1/16J
R011 1K
R012 1K
R013 1K
R014 1K
R015 100 RD1/16J
R016 100
R018 1K RD1/16J
R020 1K RD1/16J
R022 1K
R024 1K
R025 1K RD1/16J
R029 100
R030 XXX
R031 100
R032 100
R041 1K
+5V


C
D
E
1
2
3
to DEFRECTION PWB
PSD3
B-B11P
PSD2
B-B13P
PSD1
B-B7P
31/33
S.WIDE
SWIDE
ABL
SPOT
CUT OFF
CUTOFF
H SYNC(2H)
2HHSYNC
H.GND
H BLK(2H)
2HHBLK
GND
V SYNC(2H)
2HVSYNC
V BLK(2H)
2HVBLK
+13V
NC
SCL2
SDA2
R153 1K RD1/16J
R154 XXX RD1/16J
R155 1K RD1/16J
R156 1K RD1/16J
R157 1K RD1/16J
R158 1K RD1/16J
I001
TV.u
I002
M24C16
I003
M62392P
+5V
+9V
R172 10K
R159 100 RD1/16J
R160 100 RD1/16J
C032 0.047
C033 100/16 SMG
C034 47/16 SMG
C035 0.1
MTS
FMONO
ANT
UV/IO
HBLKPH
FCON/OFF
YUVSEL
R161 100
R162 100
R163 1K RD1/16J
R164 1K RD1/16J
R165 1K RD1/16J
R166 1K
R167 XXX
R168 XXX
R169 1K
R170 XXX
R171 1K
R0R6 1K
SDA1
SCL1
SPANEL
PAFC
MAFC
FVSYNC
MENABLE
PENABLE
CLOCK
DATA
FCENABLE
DOLENABLE
3DPENABLE
TUCLOCK
FHSYNC
TUDATA
Q025 2SC2412K
Q026 2SA1037K
Q027 XXX
D027 XXX
D001 XXX
D002 XXX
KK19 (D026)
R173 6.6K
R174 47K
R175 10K
R176 100K
R183 4.7K RD1/16J
C036 XXX
C037 1000P
C038 10/16 SMG
C040 XXX SMG
C007 2200P
C008 XXX

- All DC voltage to be measured with a tester (100kΩ/V). Voltage ta
- Since this is a basic circuit diagram, the value of the parts is subj

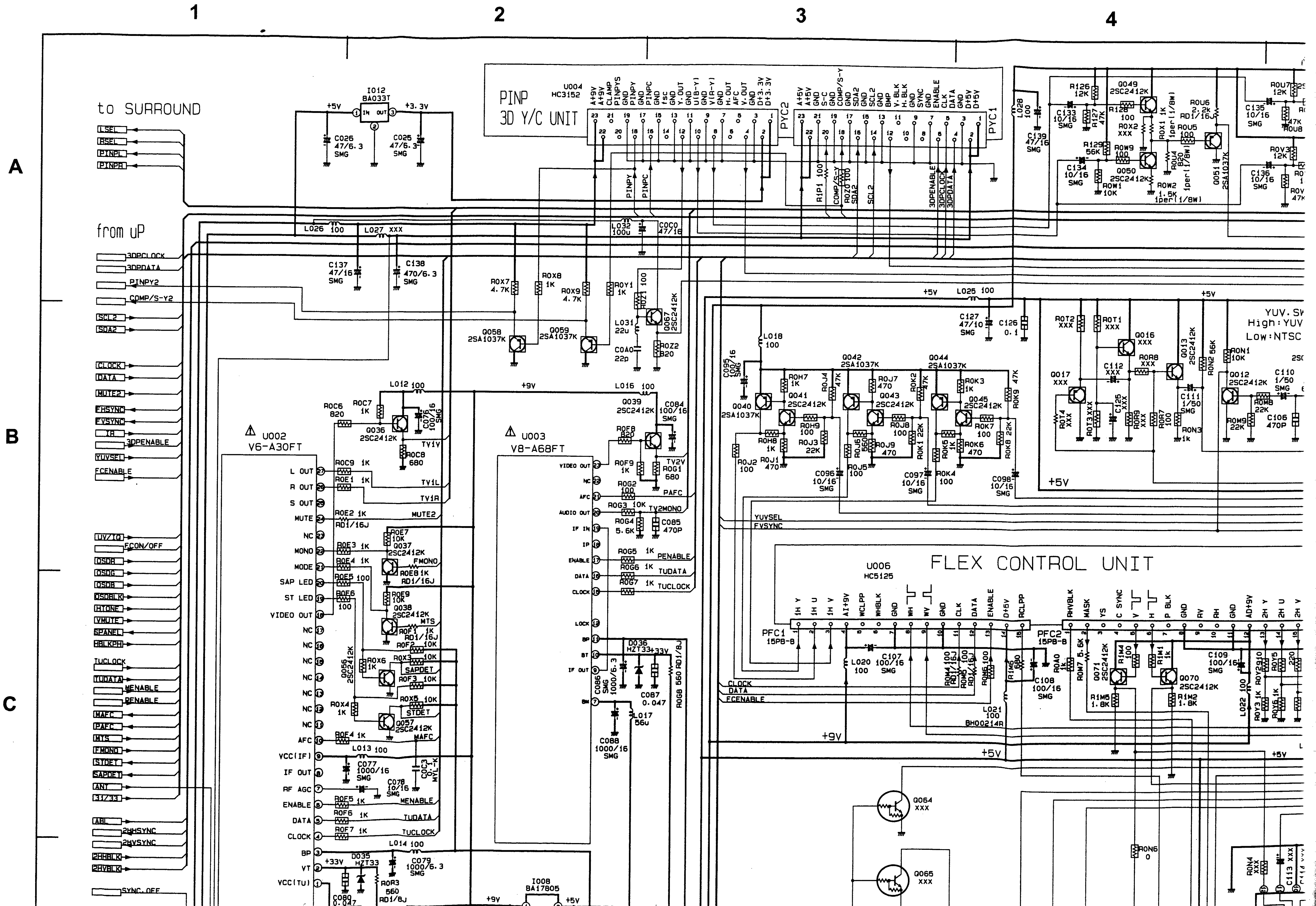

3
4
5
6
A
B
C
to SURROUND, AUDIO OUT
SCL1
SDA1
SCL2
SDA2
CLOCK
DATA
DOLENABLE
VMUTE2
MUTE2
to AV SELECTOR
SCL1
SCL2
IR
to YUV PROCESSOR, etc
SCL2
SDA2
FHSYNC
FVSYNC
to 2H VIDEO
OSDR
OSDG
OSDB
OSDBLK
HTONE
SCL2
SDA2
UV/IQ
VMUTE
SPANEL
HBLKPH
2HHSYNC
2HVSYNC
ABL
2HHBLK
2HVBLK
YUVSEL
31/33
to 3DY/C+PINP UNIT
SCL2
SDA2
3DPCLOCK
3DPDATA
FCON/OFF
COMP/S-Y2
PINPY2
3DPENABLE
to FREX CONTROL UNIT
CLOCK
DATA
FCENABLE
to MAIN TUNER, SUB TUNER
TUCLOCK
TUDATA
+5V
+12V
I004 74HC4053
I016 MM1115XS
H:Main
L:PinP
I017 XXX
Q009 2SC3852
Q001 2SA1037K
Q010 2SC2412K
Q011 2SC2412K
Q014 2SC2412K
Q016 2SC2412K
Q068 2SC2412K
Q021 2SC2412K
Q020 2SC2412K
Q069 2SC2412K
Q022 2SC2412K
Q023 2SC2412K
Q024 2SC2412K
Q002 2SC2412K
Q003 2SC2412K
Q004 2SC2412K
Q005 2SC2412K
Q006 2SC2412K
Q008 2SC2412K
D020 1SS254
D038 1SS254
D021 1SS254
D023 1SS254
D022 1SS254
D025 1SS254
D019 HZ9C1
D009 1SS254
D010 MTZJ5.1B
UPR
DIGR
BUSY
UPBLK
DIGG
UPG
DIGB
UPB
DSIZE
PBLK
3DPDATA
HTONE
KK18 (D024)
L001
L002 100
L030 100
PP1
2PEH

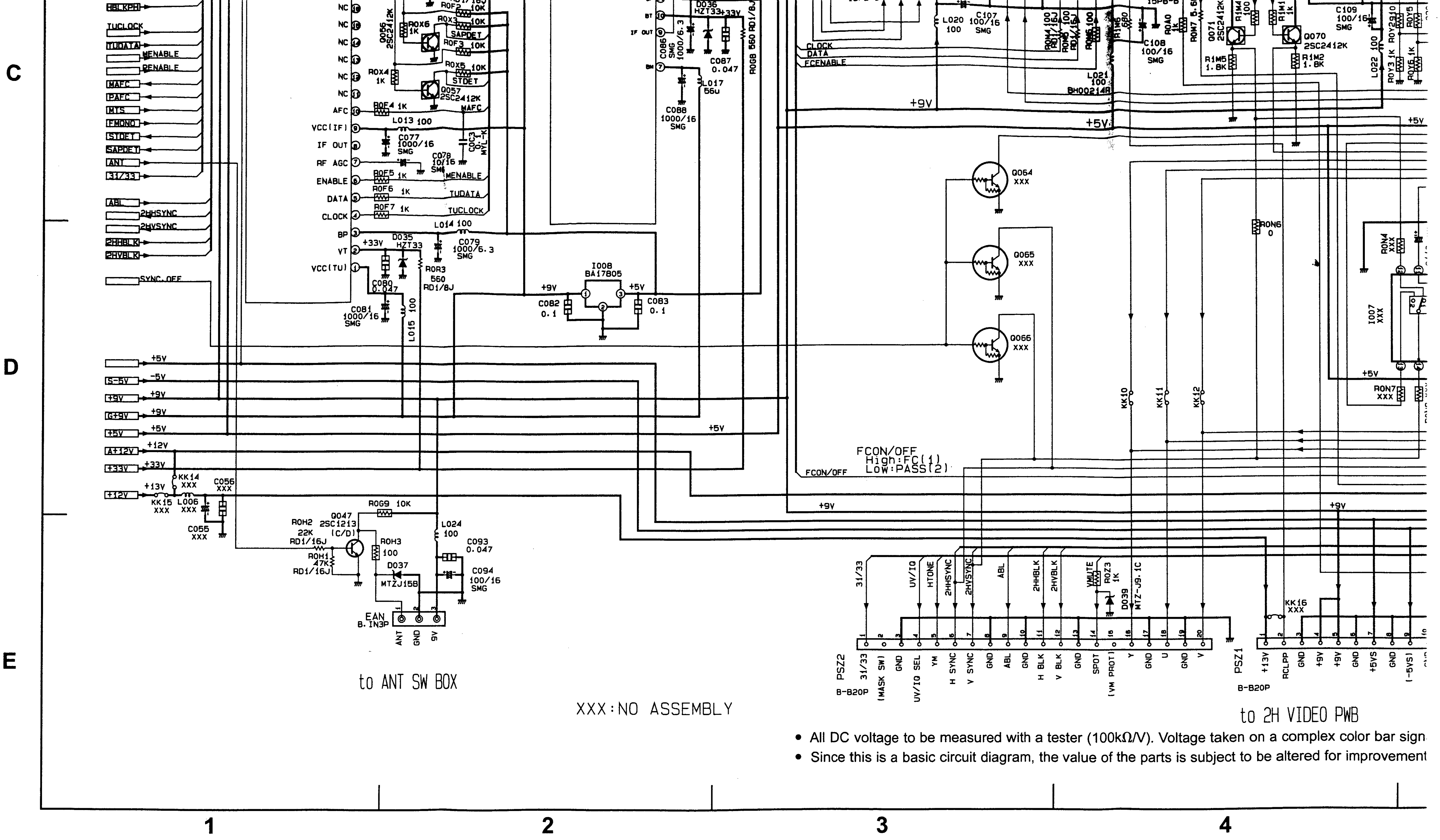

to 3DY/C+PINP UNIT
ABL
2HHBLK
2HVBLK
YUVSEL
31/33
SCL2
SDA2
3DPCLOCK
3DPDATA
FCON/OFF
COMP/S-Y2
PINPY2
3DPENABLE
to FREX CONTROL UNIT
CLOCK
DATA
FCENABLE
to MAIN TUNER, SUB TUNER
TUCLOCK
TUDATA
MENABLE
PENABLE
MAFC
PAFC
MTS
FMONO
STDET
SAPDET
ANT
+9V
A+12V
+12V
POWER
AC
SYNC.OFF
VMUTE2
VMUTE
I003 M62392P
I016 MM1115XS
H:Main
L:PinP
+5V
+9V
+12V
2PEH
PP1
C
D
E
3
4
5
6

XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 SIGNAL P.W.B. 1/3

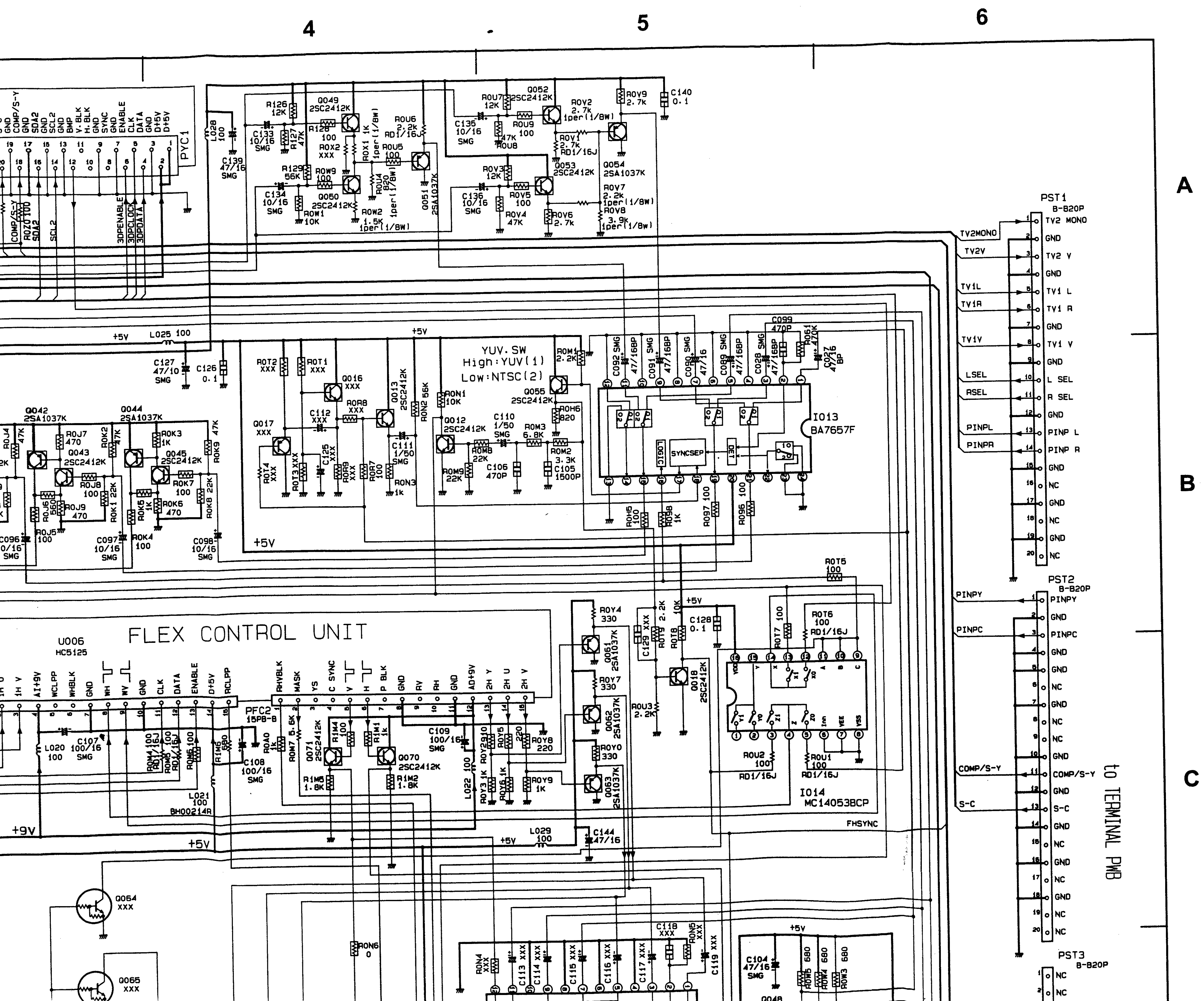

1
2
3
4
A
B
C
to SURROUND
LSEL
RSEL
PINPL
PINPR
from uP
3DPCLOCK
3DPDATA
PINPY2
COMP/S-Y2
SCL2
SDA2
CLOCK
DATA
MUTE2
FHSYNC
FVSYNC
IR
3DPENABLE
YUVSEL
FCENABLE
UV/IQ
FCON/OFF
OSDR
OSDG
OSDB
OSDBLK
HTONE
VMUTE
SPANEL
HBLKPH
TUCLOCK
TUDATA
MENABLE
PENABLE
MAFC
PAFC
MTS
FMONO
STDET
SAPDET
ANT
31/33
ABL
2HHSYNC
2HVSYNC
2HHBLK
2HVBLK
SYNC.OFF
I012 BA033T
+5V
+3.3V
IN OUT
C026 47/6.3 SMG
C025 47/6.3 SMG
PINP 3D Y/C UNIT
U004 HC3152
A+9V
CLAMP
PINPYS
GND
PINPY
PINPC
fsc
Y.OUT
U(B-Y)
V(R-Y)
H.OUT
AFC
V.OUT
D+3.3V
PYC2
A+5V
S-C
COMP/S-Y
SDA2
SCL2
BMP
V.BLK
H.BLK
SYNC
ENABLE
CLK
D+5V
PYC1
L026 100
L027 XXX
C137 47/16 SMG
C138 470/6.3 SMG
L032 100u
C0C0 47/16
R0X7 4.7K
R0X8 1K
R0X9 4.7K
R0Y1 1K
R0Z1 100
Q058 2SA1037K
Q059 2SA1037K
Q067 2SC2412K
L031 22u
C0A0 22p
R0Z2 820
R1P1 100
R0Z0 100
3DPENABLE
3DPCLOCK
3DPDATA
L028 100
C139 47/16 SMG
R126 12K
Q049 2SC2412K
C133 10/16 SMG
R127 47K
R128 100
R0X2 XXX
R0X1 1K 1per(1/8W)
R0U6 2.2K RD1/16J
R0U5 100
R129 56K
R0W9 100
C134 10/16 SMG
R0W1 10K
Q050 2SC2412K
R0W4 820 1per(1/8W)
R0W2 1.5K 1per(1/8W)
Q051 2SA1037K
R0U7 12K
C135 10/16 SMG
R0U8 47K
R0V3 12K
C136 10/16 SMG
L012 100
R0C6 820
R0C7 1K
C076 100/16 SMG
Q036 2SC2412K
R0C8 680
TV1V
U002 V6-A30FT
L OUT
R OUT
S OUT
MUTE
NC
MONO
MODE
SAP LED
ST LED
VIDEO OUT
AFC
VCC(IF)
IF OUT
RF AGC
ENABLE
DATA
CLOCK
BP
VT
VCC(TU)
R0C9 1K
R0E1 1K
TV1L
TV1R
R0E2 1K RD1/16J
MUTE2
R0E7 10K
Q037 2SC2412K
R0E3 1K
R0E4 1K
FMONO
R0E8 1K RD1/16J
R0E5 100
R0E9 10K
R0E6 100
Q038 2SC2412K
MTS
R0F1 1K RD1/16J
R0F2 10K
Q055 2SC2412K
R0X6 1K
R0X3 10K
SAPDET
R0F3 10K
R0X4 1K
R0X5 10K
STDET
Q057 2SC2412K
R0F4 1K
MAFC
L013 100
C077 1000/16 SMG
C078 10/16 SMG
C0C3 0.1 MYL-K
R0F5 1K
MENABLE
R0F6 1K
TUDATA
R0F7 1K
TUCLOCK
L014 100
+33V
D035 HZT33
C079 1000/6.3 SMG
R0R3 560 RD1/8J
C080 0.047
+9V
L016 100
Q039 2SC2412K
C084 100/16 SMG
U003 V8-A68FT
VIDEO OUT
AUDIO OUT
IF IN
IP
ENABLE
LOCK
BT
IF OUT
BM
R0F8 820
R0F9 1K
R0G1 680
TV2V
R0G2 100
PAFC
R0G3 10K
TV2MONO
R0G4 5.6K
C085 470P
R0G5 1K
PENABLE
R0G6 1K
TUDATA
R0G7 1K
TUCLOCK
D036 HZT33
C086 1000/6.3 SMG
C087 0.047
L017 56u
R0G8 560 RD1/8J
C088 1000/16 SMG
I008 BA17805
+5V
L025 100
C127 47/10 SMG
C126 0.1
L018 100
C095 100/16 SMG
Q040 2SA1037K
Q042 2SA1037K
Q044 2SA1037K
R0H7 1K
Q041 2SC2412K
R0J4 47K
R0H9 100
R0H8 1K
R0J3 22K
R0J2 100
R0J1 470
R0J7 470
Q043 2SC2412K
R0J8 100
R0J6 560
R0J9 470
R0K1 22K
R0J5 100
C096 10/16 SMG
R0K2 47K
R0K3 1K
Q045 2SC2412K
R0K7 100
R0K5 1K
R0K6 470
R0K8 22K
R0K4 100
C097 10/16 SMG
R0K9 47K
C098 10/16 SMG
R0T2 XXX
R0T1 XXX
Q016 XXX
Q017 XXX
C112 XXX
R0R8 XXX
Q013 2SC2412K
R0N2 56K
C111 1/50 SMG
R0T4 XXX
R0T3 XXX
C125 XXX
R0R9 XXX
R0R7 100
R0N3 1k
YUV.SW
High:YUV
Low:NTSC
R0N1 10K
Q012 2SC2412K
C110 1/50 SMG
R0M8 22K
R0M9 22K
C106 470P
YUVSEL
FVSYNC
U006 HC5125
FLEX CONTROL UNIT
IH Y
IH U
IH V
AI+9V
WCLPP
WHBLK
GND
WH
WV
CLK
DATA
ENABLE
D+5V
RCLPP
RHVBLK
MASK
YS
C SYNC
V
H
P BLK
RV
RH
AD+9V
2H Y
2H U
2H V
PFC1 15PB-B
PFC2 15PB-B
L020 100
C107 100/16 SMG
R0M4 100 RD1/16J
R0M5 100 RD1/16J
R0M6 100
R1M6 680
C108 100/16 SMG
L021 100 BH00214R
R0A0 1k
R0M7 5.6K
Q071 2SC2412K
R1M4 100
R1M1 1k
Q070 2SC2412K
R1M5 1.8K
R1M2 1.8K
C109 100/16 SMG
R0Y2 10
R0Y5 10
L022 100
R0Y3 1K
R0Y6 1K
CLOCK
DATA
FCENABLE
Q064 XXX
Q065 XXX
R0N6 0
R0N4 XXX
C113 XXX

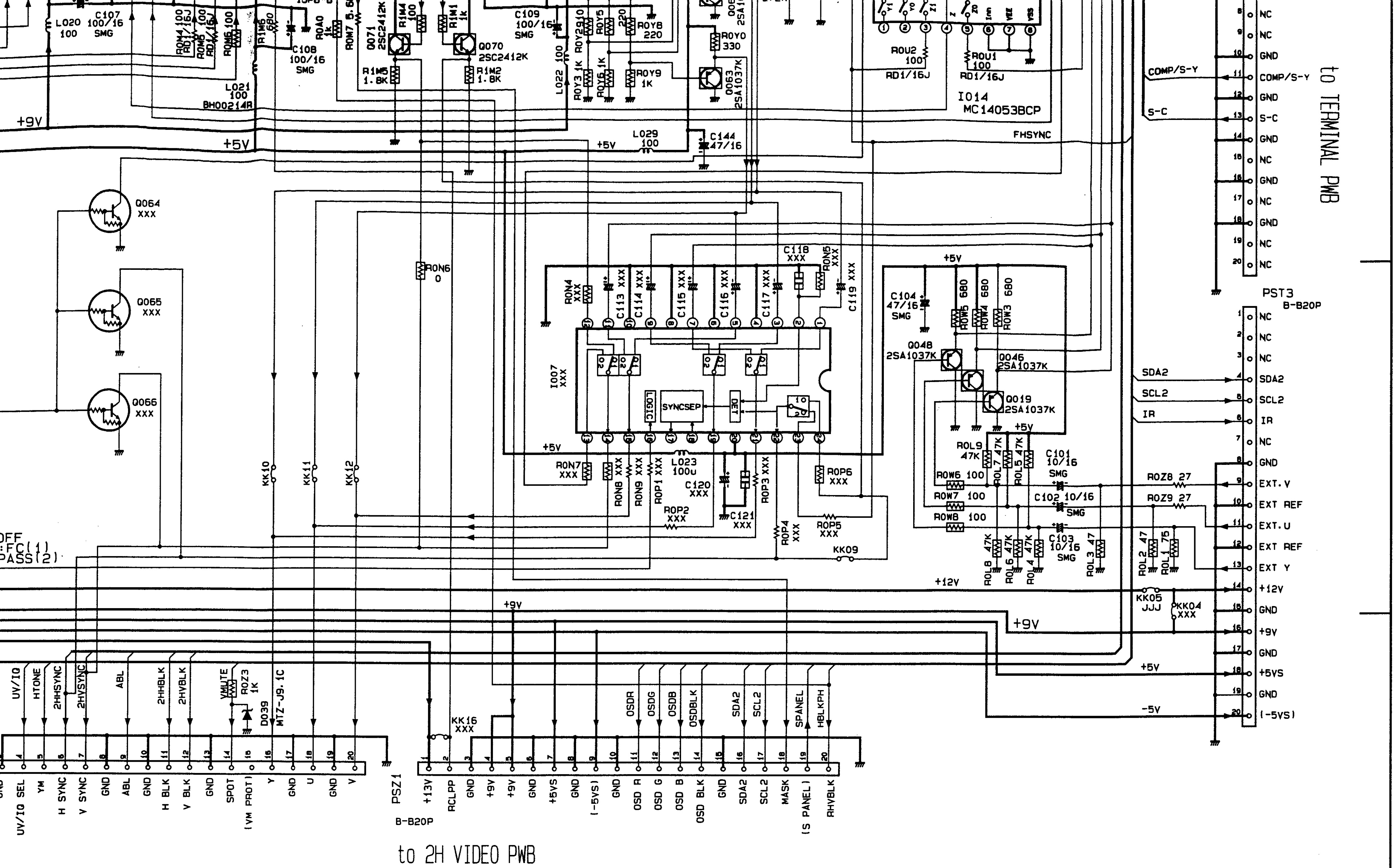

C
D
E
1
2
3
4
HBLKPH
TUCLOCK
TUDATA
MENABLE
PENABLE
MAFC
PAFC
MTS
FMONO
STDET
SAPDET
ANT
31/33
ABL
2HHSYNC
2HVSYNC
2HHBLK
2HVBLK
SYNC.OFF
+5V
S-5V
+9V
G+9V
+5V
A+12V
+33V
+12V
NC
AFC
VCC(IF)
IF OUT
RF AGC
ENABLE
DATA
CLOCK
BP
VT
VCC(TU)
Q056 2SC2412K
Q057 2SC2412K
R0X6 1K
R0X4 1K
L013 100
C077 1000/16 SMG
C078 10/16 SMG
L014 100
C079 1000/6.3 SMG
D035 HZT33
R0R3 560 RD1/8J
C080 0.047
C081 1000/16 SMG
L015 100
D036 HZT33
C086 SMG 1000/6.3
C087 0.047
L017 56u
C088 1000/16 SMG
R0G8 560 RD1/8J
I008 BA17805
C082 0.1
C083 0.1
KK14 XXX
KK15 XXX
L006 XXX
C055 XXX
C056 XXX
Q047 2SC1213 (C/D)
R0H2 22K RD1/16J
R0H1 47K RD1/16J
R0G9 10K
R0H3 100
D037 MTZJ15B
L024 100
C093 0.047
C094 100/16 SMG
EAN B.IN3P
ANT
GND
9V
to ANT SW BOX
XXX:NO ASSEMBLY
CLOCK
DATA
FCENABLE
L020 100
C107 100/16 SMG
L021 100
BH00214R
C108 100/16 SMG
Q071 2SC2412K
Q070 2SC2412K
R1M5 1.8K
R1M2 1.8K
C109 100/16 SMG
L022 100
Q064 XXX
Q065 XXX
Q066 XXX
R0N6 0
R0N4 XXX
I007 XXX
R0N7 XXX
KK10
KK11
KK12
KK16 XXX
FCON/OFF
High:FC(1)
Low:PASS(2)
R0Z3 1K
D039 MTZ-J9.1C
PSZ2
B-B20P
31/33
(MASK SW)
GND
UV/IQ SEL
YM
H SYNC
V SYNC
GND
ABL
GND
H BLK
V BLK
GND
SPOT
(VM PROT)
Y
GND
U
GND
V
PSZ1
B-B20P
+13V
RCLPP
GND
+9V
+9V
GND
+5VS
GND
(-5VS)
to 2H VIDEO PWB

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sign
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement

GRAM

safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


4
5
6
A
B
C
PYC1
COMP/S-Y
SDA2
SCL2
3DPENABLE
3DPCLOCK
3DPDATA
R126 12K
Q049 2SC2412K
Q050 2SC2412K
Q051 2SA1037K
Q052 2SC2412K
Q053 2SC2412K
Q054 2SA1037K
C139 47/16 SMG
L028 100
R0V9 2.7K
C140 0.1
+5V
L025 100
C127 47/10 SMG
C126 0.1
YUV.SW
High:YUV(1)
Low:NTSC(2)
Q055 2SC2412K
Q042 2SA1037K
Q043 2SC2412K
Q044 2SA1037K
Q045 2SC2412K
Q012 2SC2412K
Q013 2SC2412K
Q016 XXX
Q017 XXX
C099 470P
I013
BA7657F
SYNCSEP
PST1
B-B20P
TV2MONO
TV2V
TV1L
TV1R
TV1V
LSEL
RSEL
PINPL
PINPR
TV2 MONO
GND
TV2 V
TV1 L
TV1 R
TV1 V
L SEL
R SEL
PINP L
PINP R
NC
PST2
B-B20P
PINPY
PINPC
COMP/S-Y
S-C
to TERMINAL PWB
PST3
B-B20P
FLEX CONTROL UNIT
U006
HC5125
PFC2
15PB-B
RHVBLK
MASK
YS
C SYNC
V
H
P BLK
GND
RV
RH
AD+9V
2H Y
2H U
2H V
AI+9V
WCLPP
WHBLK
WH
WV
CLK
DATA
ENABLE
D+5V
RCLPP
Q070 2SC2412K
Q071 2SC2412K
Q061 2SA1037K
Q062 2SA1037K
Q063 2SA1037K
Q018 2SC2412K
I014
MC14053BCP
FHSYNC
L020 100
C107 100/16 SMG
C108 100/16 SMG
C109 100/16 SMG
L021 100
BH00214R
L022 100
L029 100
C144 47/16
+9V
Q064 XXX
Q065 XXX
C118 XXX
C104 47/16 SMG
Q048

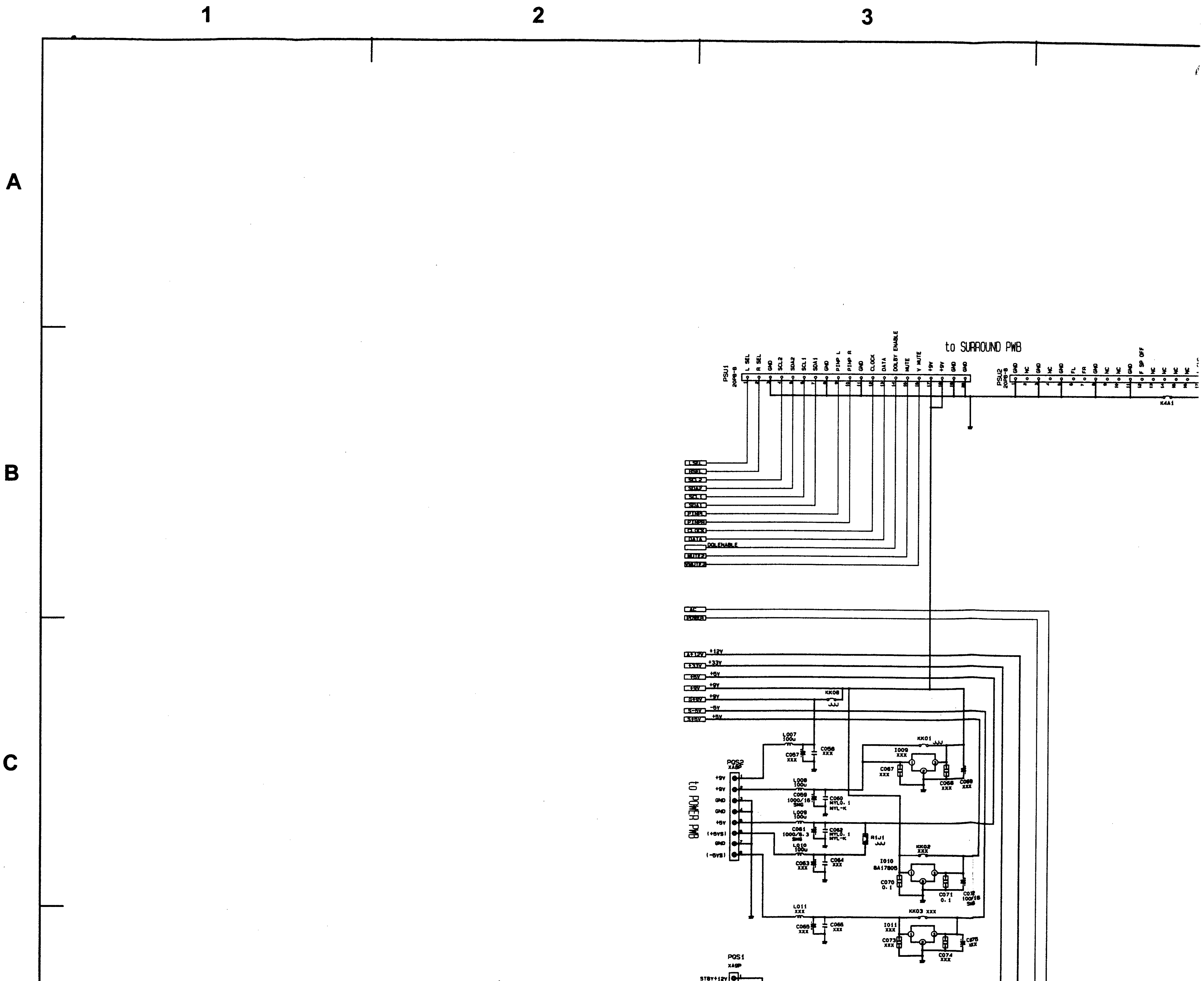

to TERMINAL PWB
PST3
B-B20P
PSZ1
B-B20P
to 2H VIDEO PWB
I007
XXX
SYNCSEP
LOGIC
DET
I014
MC14053BCP
Q064
Q065
Q066
Q070
2SC2412K
Q071
2SC2412K
Q063
2SA1037K
Q048
2SA1037K
Q046
2SA1037K
Q019
2SA1037K
D039
MTZ-J9.1C
+5V
+9V
+12V
-5V
FHSYNC
COMP/S-Y
S-C
SDA2
SCL2
IR
EXT. V
EXT REF
EXT. U
EXT Y
+5VS
(-5VS)
+13V
RCLPP
OSD R
OSD G
OSD B
OSD BLK
MASK
(S PANEL)
RHVBLK
UV/IO SEL
YM
H SYNC
V SYNC
ABL
H BLK
V BLK
SPOT
(VM PROT)
Y
U
V
KK09
KK16
KK05
KK04
4
5
6
C
D
E

to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 SIGNAL P.W.B. 2/3

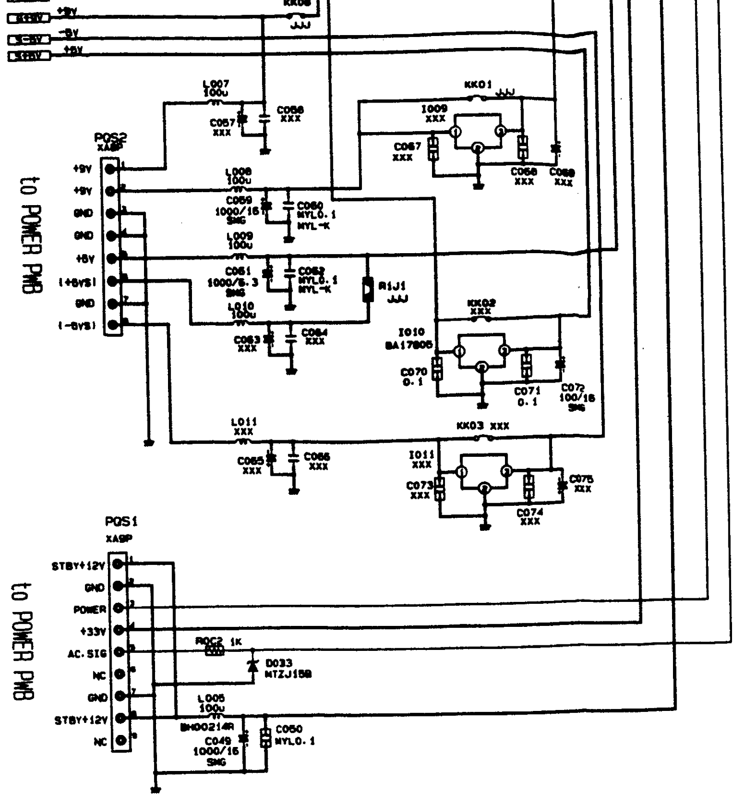
Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
A
B
C
to SURROUND PWB
PSU1
20P8-B
L SEL
R SEL
GND
SCL2
SDA2
SCL1
SDA1
GND
PINP L
PINP R
GND
CLOCK
DATA
DOLBY ENABLE
MUTE
V MUTE
+9V
+9V
GND
GND
PSU2
20P8-B
GND
NC
GND
NC
GND
FL
FR
GND
NC
NC
GND
F SP OFF
NC
NC
NC
NC
K4A1
LSEL
RSEL
SCL2
SDA2
SCL1
SDA1
PINPL
PINPR
CLOCK
DATA
DOLENABLE
MUTE2
VMUTE2
AC
POWER
A+12V
+12V
+33V
+33V
+5V
+5V
+9V
+9V
G+9V
+9V
S-5V
-5V
S+5V
+5V
KK08
JJJ
L007
100u
C057
XXX
C058
XXX
KK01
JJJ
I009
XXX
C067
XXX
C068
XXX
C069
XXX
to POWER PWB
POS2
XASP
+9V
+9V
GND
GND
+5V
(+5VS)
GND
(-5VS)
L008
100u
C059
1000/16
SMG
C060
MYL0.1
MYL-K
L009
100u
C061
1000/6.3
SMG
C062
MYL0.1
MYL-K
R1J1
JJJ
L010
100u
C063
XXX
C064
XXX
KK02
XXX
I010
BA17805
C070
0.1
C071
0.1
C072
100/16
SMG
L011
XXX
C065
XXX
C066
XXX
KK03 XXX
I011
XXX
C073
XXX
C074
XXX
C075
XXX
POS1
XASP
STBY+12V

C

D

E


+9V
-8V
+5V
KK06
JJJ
L007
100u
C057
XXX
C058
XXX
PQS2
XA8P
to POWER PWB
+9V
+9V
GND
GND
+5V
(+6VS)
GND
(-6VS)
L008
100u
C059
1000/16
SMG
C060
MYL0.1
MYL-K
L009
100u
C061
1000/6.3
SMG
C062
MYL0.1
MYL-K
L010
100u
C063
XXX
C064
XXX
R1J1
JJJ
KK01
JJJ
I009
XXX
C067
XXX
C068
XXX
C069
XXX
KK02
XXX
I010
BA17806
C070
0.1
C071
0.1
C072
100/16
SMG
L011
XXX
C065
XXX
C066
XXX
KK03 XXX
I011
XXX
C073
XXX
C074
XXX
C075
XXX
PQS1
XA9P
to POWER PWB
STBY+12V
GND
POWER
+33V
AC.SIG
NC
GND
STBY+12V
NC
R0C2 1K
D033
MTZJ15B
L005
100u
BH00214R
C049
1000/16
SMG
C050
MYL0.1

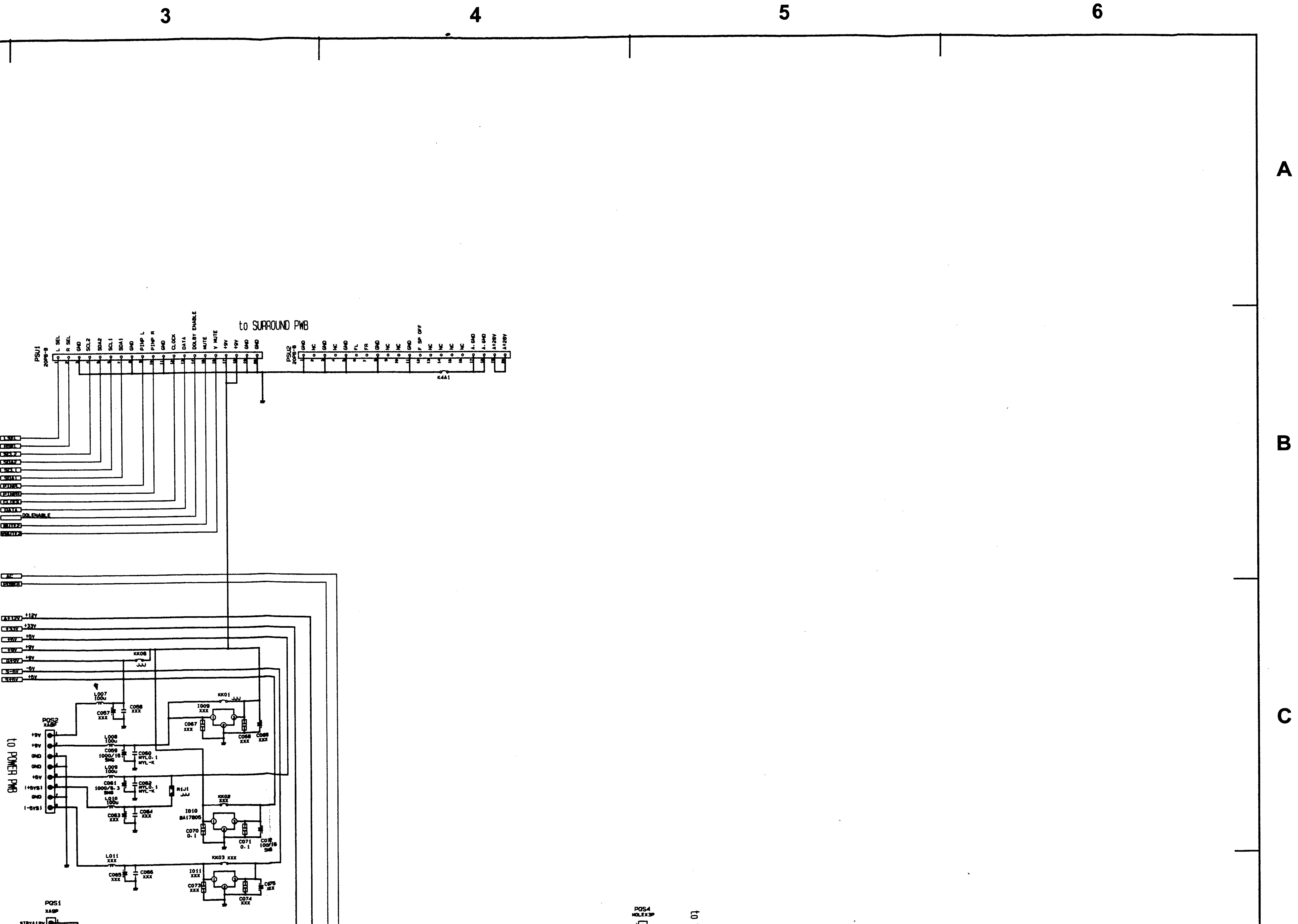
XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage
- Since this is a basic circuit dagram, the value of the parts is su

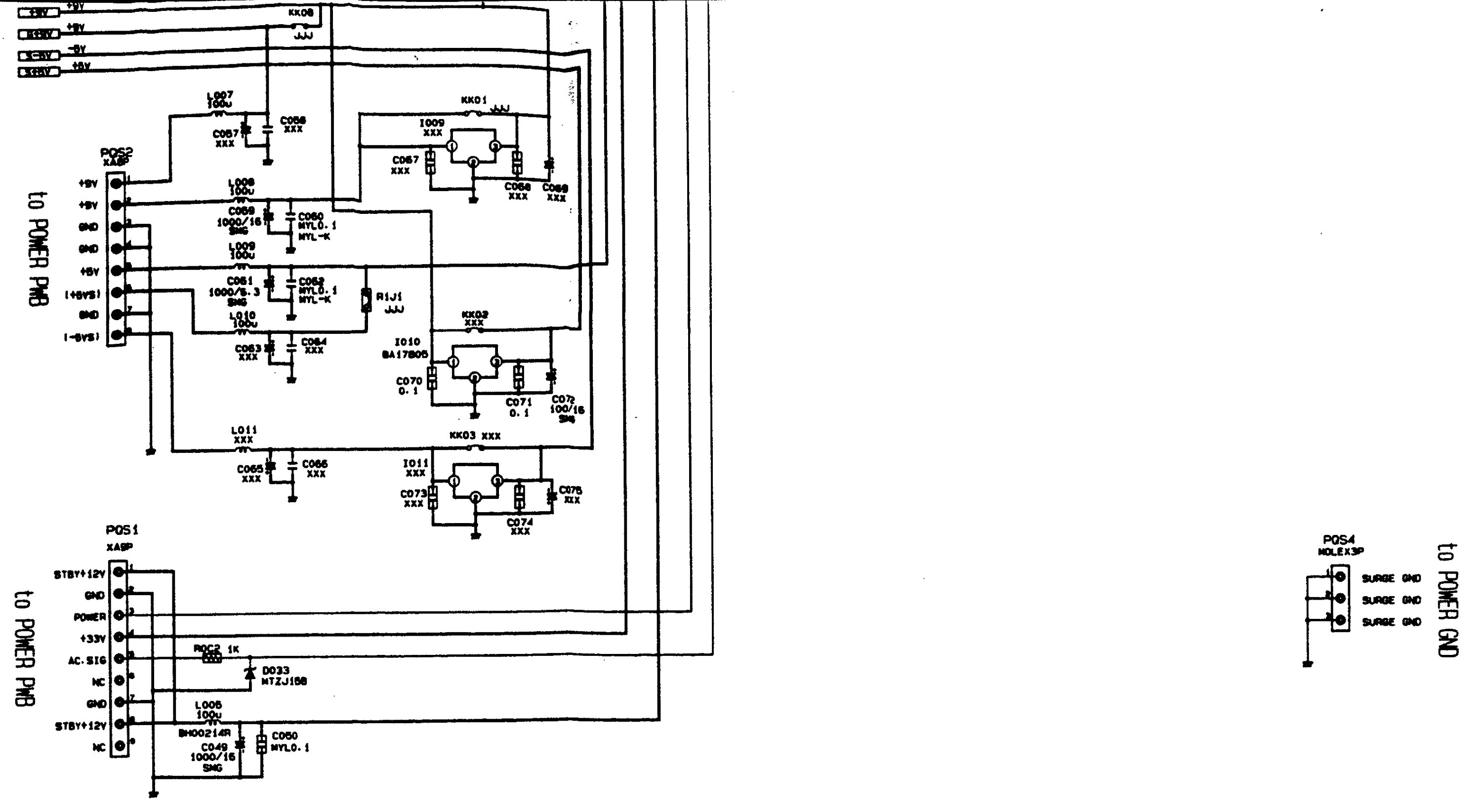
1

2

3


3
4
5
6
A
B
C
to SURROUND PWB
PSU1
20P8-8
L SEL
R SEL
GND
SCL2
SDA2
SCL1
SDA1
GND
PINP L
PINP R
GND
CLOCK
DATA
DOLBY ENABLE
MUTE
V MUTE
+9V
+9V
GND
GND
PSU2
20P8-8
GND
NC
GND
NC
GND
FL
FR
GND
NC
NC
GND
F SP OFF
NC
NC
NC
NC
A. GND
A. GND
A+28V
A+28V
K4A1
SCL2
SDA2
SCL1
SDA1
DATA
DOLENABLE
AC
+12V
+33V
+5V
+9V
+9V
-5V
+5V
KK08
JJJ
L007
100u
C057
XXX
C058
XXX
KK01
JJJ
I009
XXX
C067
XXX
C068
XXX
C069
XXX
PQS2
XA8P
+9V
+9V
GND
GND
+5V
(+5VS)
GND
(-5VS)
to POWER PWB
L008
100u
C059
1000/16
SMG
C060
MYL0.1
MYL-K
L009
100u
C061
1000/6.3
SMG
C062
MYL0.1
MYL-K
R1J1
JJJ
L010
100u
C063
XXX
C064
XXX
KK02
XXX
I010
BA17805
C070
0.1
C071
0.1
C072
100/16
SMG
L011
XXX
C065
XXX
C066
XXX
KK03 XXX
I011
XXX
C073
XXX
C074
XXX
C075
XXX
PQS1
XA9P
STBY+12V
PQS4
MOLEX3P
to

C


+9V
+9V
-5V
+5V
KK08
JJJ
L007
100u
C057
XXX
C058
XXX
KK01
JJJ
I009
XXX
C067
XXX
C068
XXX
C069
XXX
POS2
XA8P
+9V
+9V
GND
GND
+5V
(+5VS)
GND
(-5VS)
to POWER PWB
L008
100u
C059
1000/16
SMG
C060
MYL0.1
MYL-K
L009
100u
C061
1000/6.3
SMG
C062
MYL0.1
MYL-K
R1J1
JJJ
L010
100u
C063
XXX
C064
XXX
KK02
XXX
I010
BA17805
C070
0.1
C071
0.1
C072
100/16
SMG
L011
XXX
C065
XXX
C066
XXX
KK03 XXX
I011
XXX
C073
XXX
C074
XXX
C075
XXX
POS1
XA9P
STBY+12V
GND
POWER
+33V
AC.SIG
NC
GND
STBY+12V
NC
to POWER PWB
R0C2 1K
D033
MTZJ15B
L005
100u
BH00214R
C049
1000/16
SMG
C050
MYL0.1
POS4
MOLEX3P
SURGE GND
SURGE GND
SURGE GND
to POWER GND

XXX : NO ASSEMBLY

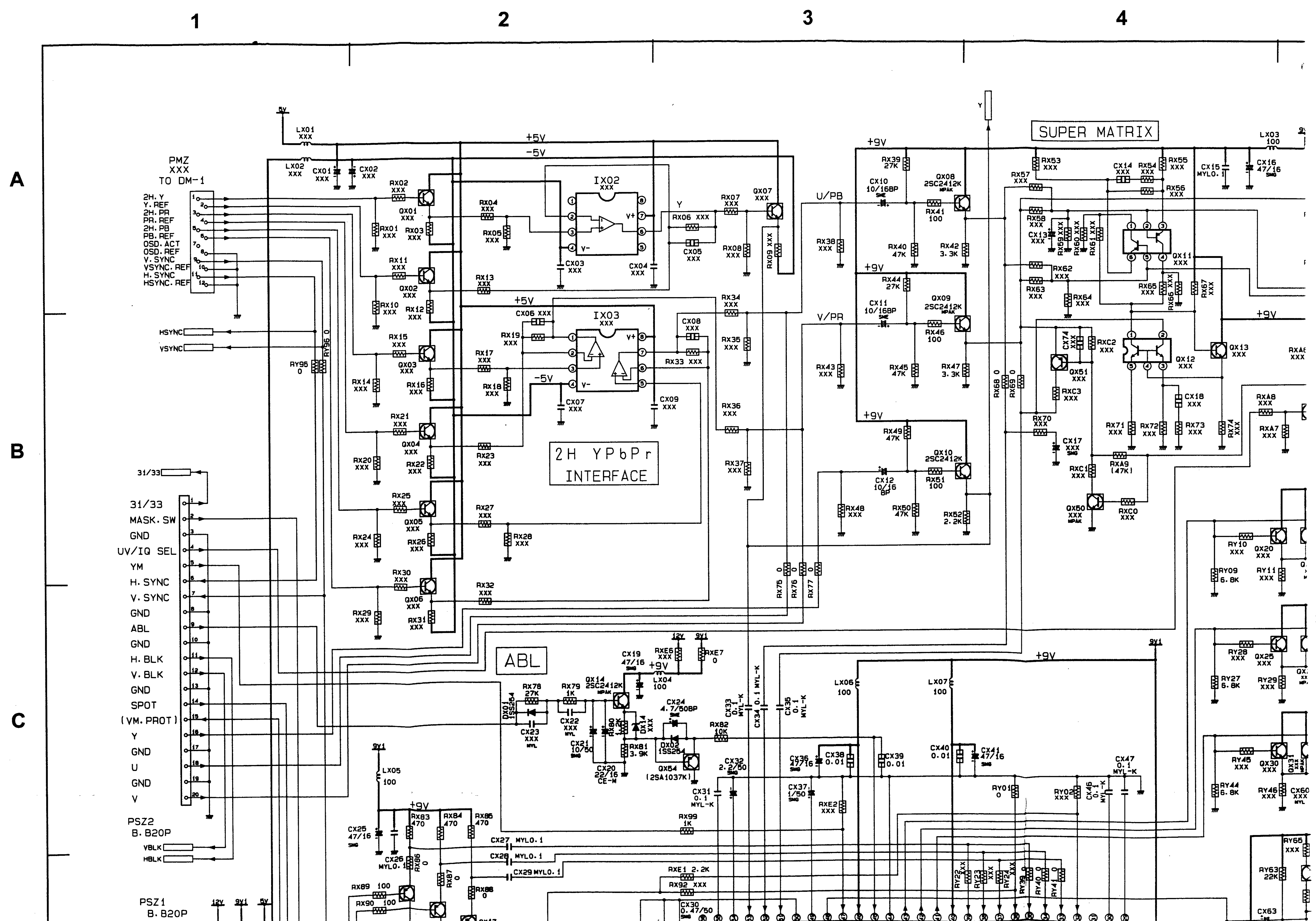
D

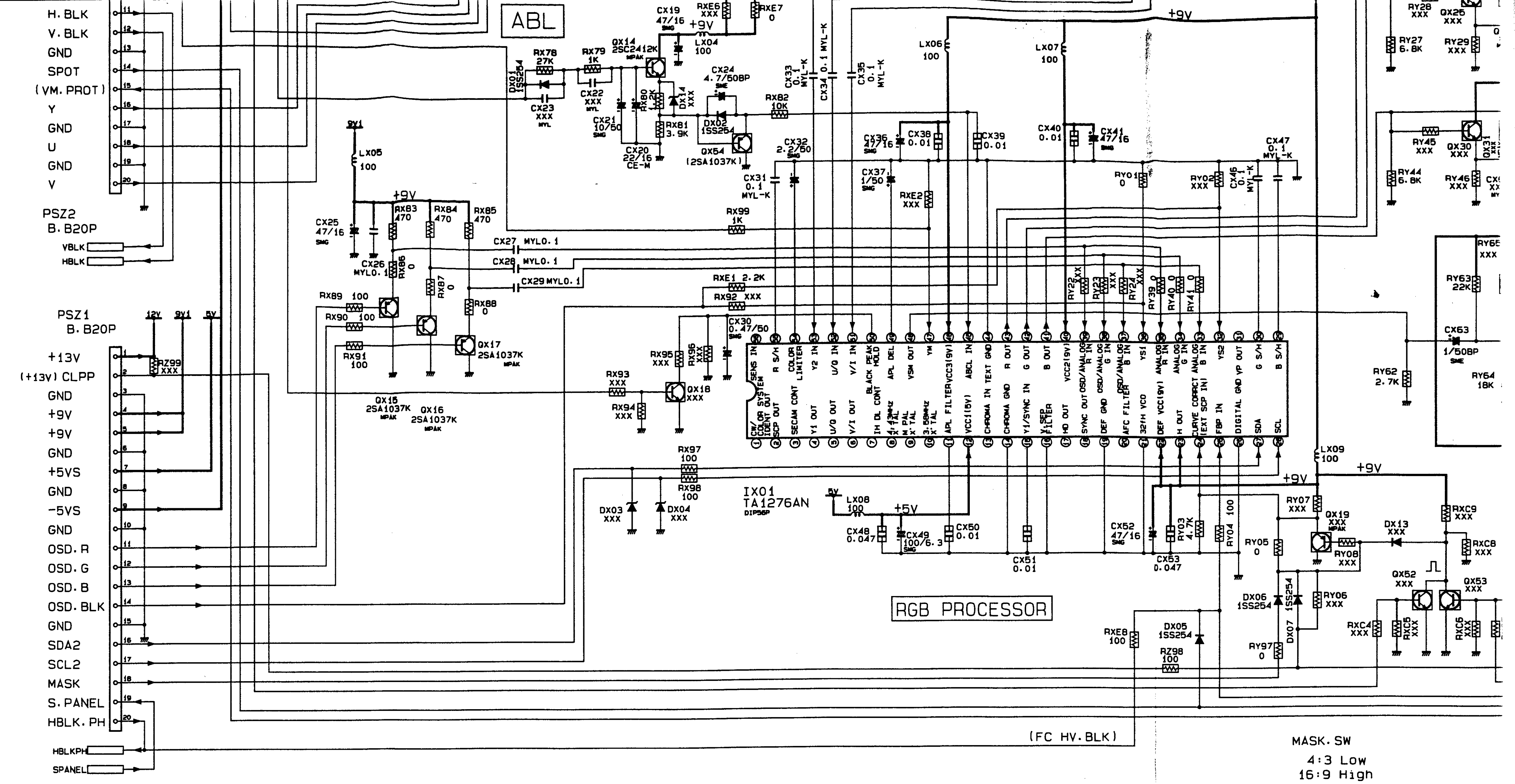
E

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit dagram, the value of the parts is subject to be altered for improvement.

DP86 SIGNAL P.W.B. 3/3

3 4 5 6

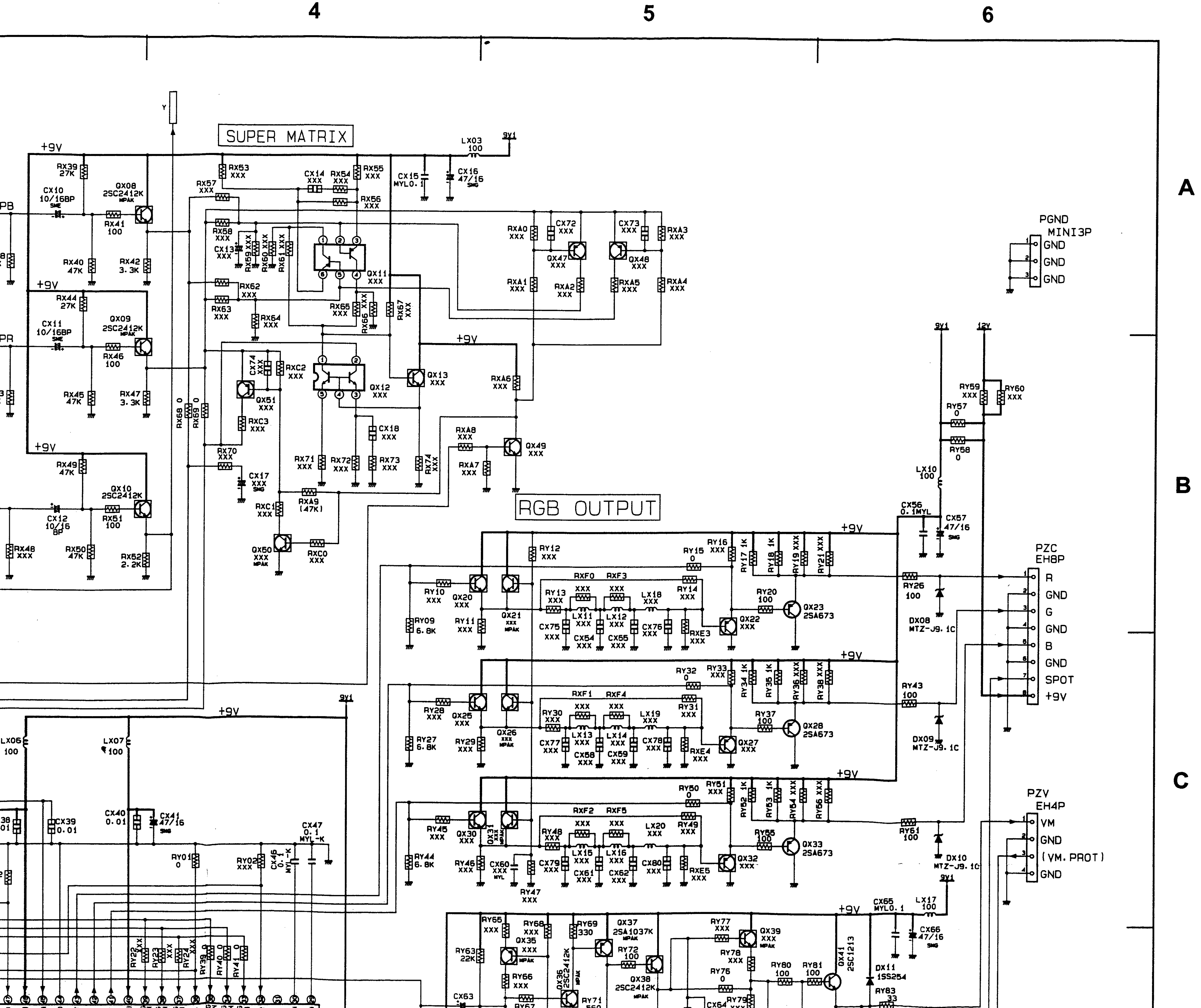

1
2
3
4
A
B
C
PMZ
XXX
TO DM-1
2H.Y
Y.REF
2H.PR
PR.REF
2H.PB
PB.REF
OSD.ACT
OSD.REF
V.SYNC
VSYNC.REF
H.SYNC
HSYNC.REF
HSYNC
VSYNC
31/33
MASK.SW
GND
UV/IQ SEL
YM
H.SYNC
V.SYNC
ABL
H.BLK
V.BLK
SPOT
(VM.PROT)
Y
U
V
PSZ2
B.B20P
VBLK
HBLK
PSZ1
B.B20P
5V
+5V
-5V
+9V
12V
9V1
IX02
IX03
2H YPbPr
INTERFACE
ABL
SUPER MATRIX
U/PB
V/PR
QX01
QX02
QX03
QX04
QX05
QX06
QX07
QX08 2SC2412K
QX09 2SC2412K
QX10 2SC2412K
QX11
QX12
QX13
QX14 2SC2412K
QX50
QX51
QX54 (2SA1037K)
QX20
QX25
QX30
DX01 1SS254
DX02 1SS254
LX01
LX02
LX03 100
LX04 100
LX05 100
LX06 100
LX07 100
RX39 27K
RX40 47K
RX41 100
RX42 3.3K
RX44 27K
RX45 47K
RX46 100
RX47 3.3K
RX49 47K
RX50 47K
RX51 100
RX52 2.2K
RX78 27K
RX79 1K
RX81 3.9K
RX82 10K
RX99 1K
RXE1 2.2K
RX83 470
RX84 470
RX85 470
RX89 100
RX90 100
RXA9 (47K)
CX10 10/16BP
CX11 10/16BP
CX12 10/16BP
CX19 47/16
CX20 22/16 CE-M
CX21 10/50
CX24 4.7/50BP
CX25 47/16
CX30 0.47/50
CX31 0.1 MYL-K
CX32 2.2/50
CX33 0.1 MYL-K
CX34 0.1 MYL-K
CX35 0.1 MYL-K
CX36 47/16
CX37 1/50
CX38 0.01
CX39 0.01
CX40 0.01
CX41 47/16
CX47 0.1 MYL-K
CX27 MYL0.1
CX28 MYL0.1
CX29 MYL0.1
RY09 6.8K
RY27 6.8K
RY44 6.8K
RY63 22K
Y


ABL
H. BLK
V. BLK
GND
SPOT
(VM. PROT)
Y
GND
U
GND
V
PSZ2
B. B20P
VBLK
HBLK
PSZ1
B. B20P
+13V
(+13V) CLPP
GND
+9V
+9V
GND
+5VS
GND
-5VS
GND
OSD. R
OSD. G
OSD. B
OSD. BLK
GND
SDA2
SCL2
MASK
S. PANEL
HBLK. PH
HBLKPH
SPANEL
IX01
TA1276AN
DIP56P
RGB PROCESSOR
(FC HV. BLK)
MASK. SW
4:3 Low
16:9 High
+9V
+5V
QX14 2SC2412K
QX54 2SA1037K
QX15 2SA1037K
QX16 2SA1037K
QX17 2SA1037K
QX18
QX19
QX30
QX52
QX53
C
D
E
1
2
3
4

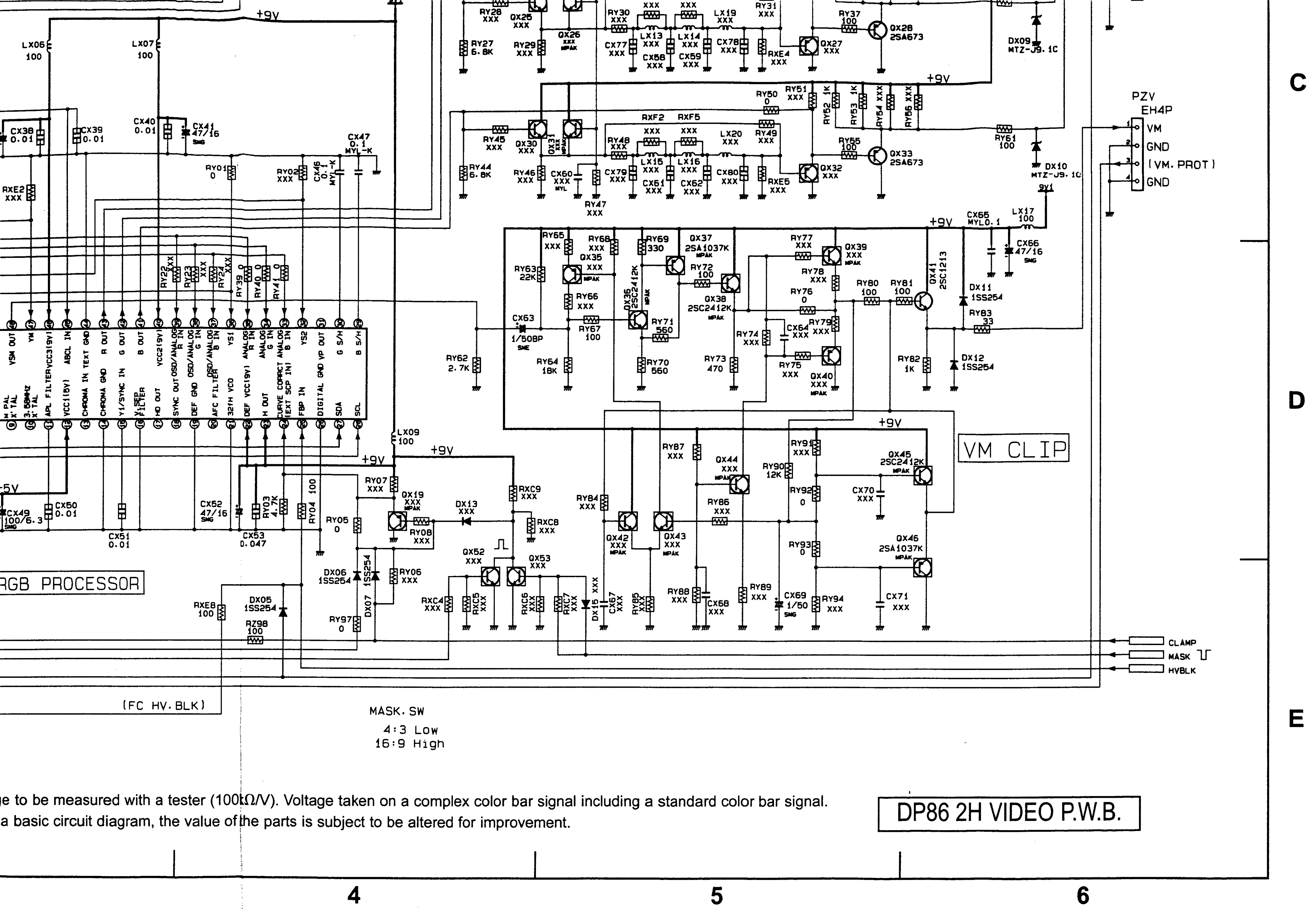
XXX : NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sign
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemen

Manual. Don’t degrade the safety of the receiver through improper servicing.



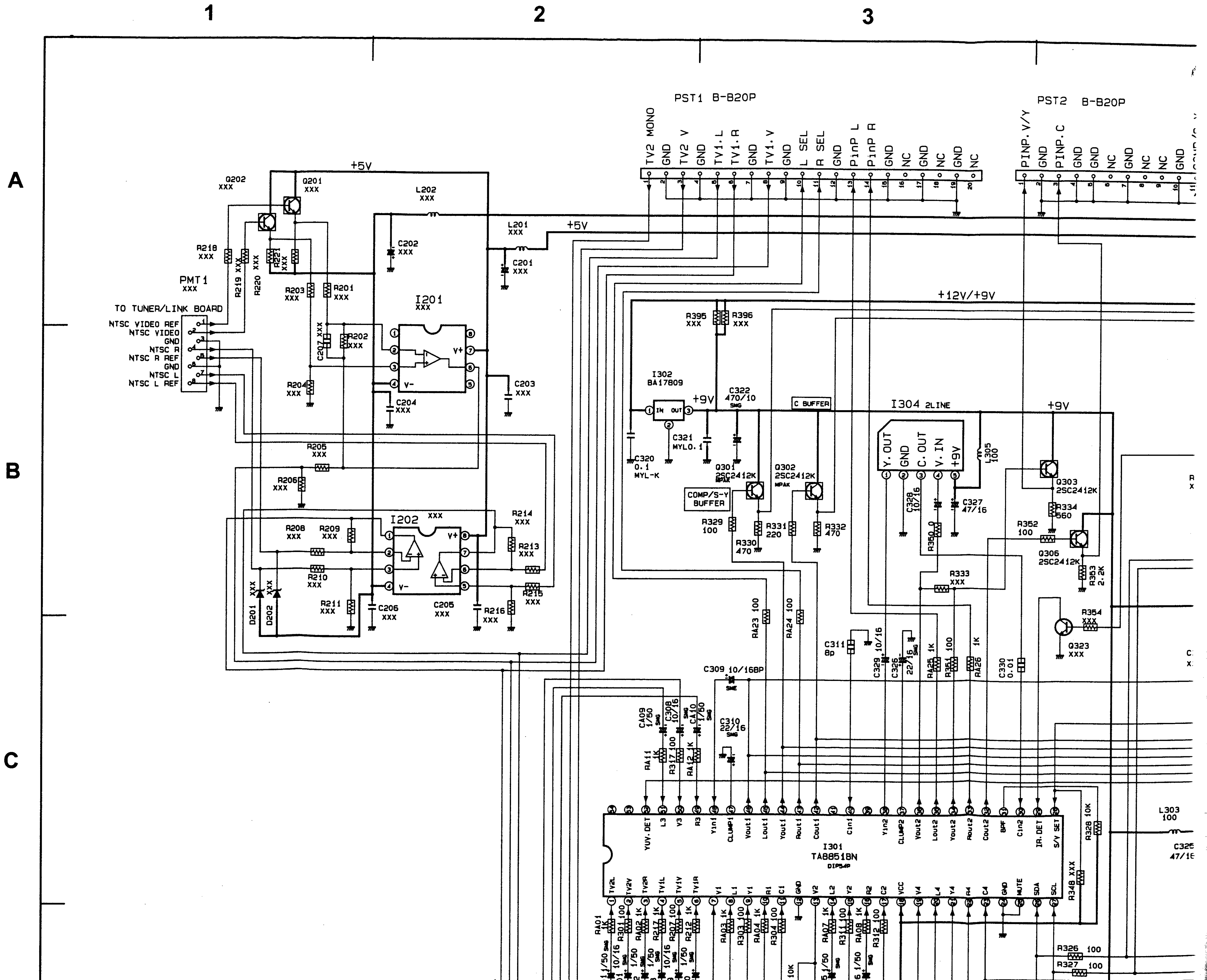
4
5
6
A
B
C
SUPER MATRIX
RGB OUTPUT
+9V
9V1
12V
Y
PB
PR
LX03 100
RX39 27K
CX10 10/16BP
QX08 2SC2412K
RX41 100
RX40 47K
RX42 3.3K
RX44 27K
CX11 10/16BP
QX09 2SC2412K
RX46 100
RX45 47K
RX47 3.3K
RX49 47K
QX10 2SC2412K
CX12 10/16 BP
RX51 100
RX48 XXX
RX50 47K
RX52 2.2K
RX53 XXX
RX57 XXX
CX14 XXX
RX54 XXX
RX55 XXX
RX56 XXX
CX15 MYL0.1
CX16 47/16
QX11 XXX
QX12 XXX
QX13 XXX
QX47 XXX
QX48 XXX
QX49 XXX
QX50 XXX
QX51 XXX
CX72 XXX
CX73 XXX
CX17 XXX
CX18 XXX
CX74 XXX
RX68 0
RX69 0
RXA9 (47K)
PGND MINI3P
GND
GND
GND
PZC EH8P
R
GND
G
GND
B
GND
SPOT
+9V
PZV EH4P
VM
GND
(VM. PROT)
GND
RY59 XXX
RY60 XXX
RY57 0
RY58 0
LX10 100
CX56 0.1MYL
CX57 47/16
RY26 100
DX08 MTZ-J9.1C
RY43 100
DX09 MTZ-J9.1C
RY61 100
DX10 MTZ-J9.1C
QX20 XXX
QX21 XXX
QX22 XXX
QX23 2SA673
RY09 6.8K
QX25 XXX
QX26 XXX
QX27 XXX
QX28 2SA673
RY27 6.8K
QX30 XXX
QX31 XXX
QX32 XXX
QX33 2SA673
RY44 6.8K
RY17 1K
RY18 1K
RY34 1K
RY35 1K
RY52 1K
RY53 1K
RY15 0
RY32 0
RY50 0
RY20 100
RY37 100
RY55 100
LX06 100
LX07 100
CX39 0.01
CX40 0.01
CX41 47/16
CX47 0.1 MYL-K
CX46 0.1 MYL-K
RY01 0
RY02 XXX
CX65 MYL0.1
LX17 100
CX66 47/16
QX35 XXX
QX36 2SC2412K
QX37 2SA1037K
QX38 2SC2412K
QX39 XXX
QX41 2SC1213
RY63 22K
RY69 330
RY72 100
RY80 100
RY81 100
RY76 0
DX11 1SS254
RY83 33

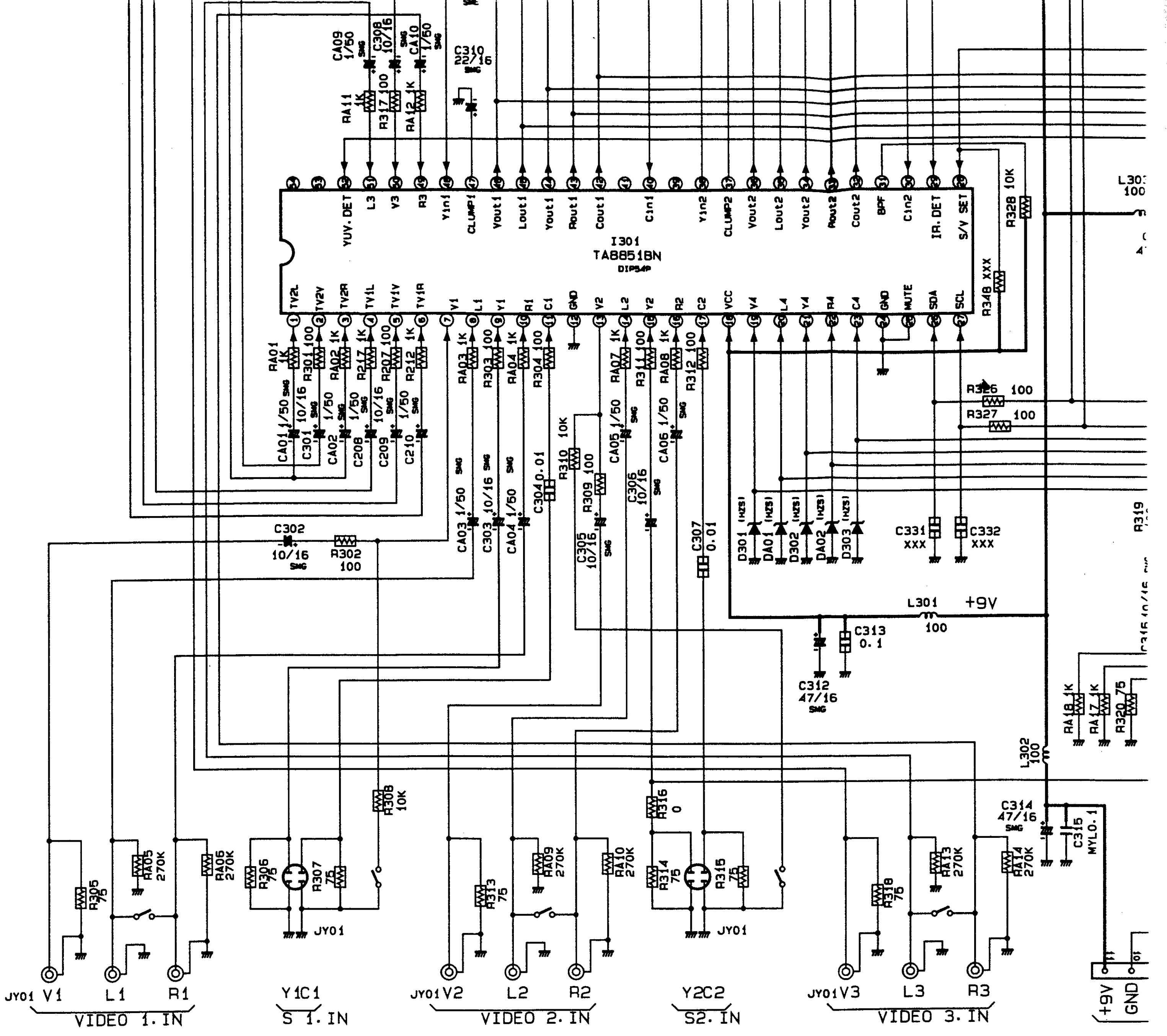

+9V
LX06 100
LX07 100
CX38 0.01
CX39 0.01
CX40 0.01
CX41 47/16
CX47 0.1 MYL-K
CX46 0.1 MYL-K
RY01 0
RY02 XXX
RXE2 XXX
RY22 XXX
RY23 XXX
RY24 XXX
RY39 0
RY40 0
RY41 0
RGB PROCESSOR
YSM OUT
YM
APL FILTER
VCC3(9V)
ABCL IN
VCC1(5V)
CHROMA IN
TEXT GND
CHROMA GND
R OUT
Y1/SYNC IN
G OUT
SEP FILTER
B OUT
HD OUT
VCC2(9V)
SYNC OUT
OSD/ANALOG R IN
DEF GND
OSD/ANALOG G IN
AFC FILTER
OSD/ANALOG B IN
32fH VCO
YS1
DEF VCC(9V)
ANALOG R IN
H OUT
ANALOG G IN
CURVE CORRECT (EXT SCP IN)
ANALOG B IN
FBP IN
YS2
DIGITAL GND
VP OUT
SDA
G S/H
SCL
B S/H
M PAL X'TAL
3.58MHz X'TAL
LX09 100
-5V
CX49 100/6.3
CX50 0.01
CX51 0.01
CX52 47/16
CX53 0.047
RY03 4.7K
RY04 100
RY05 0
RY06 XXX
RY07 XXX
RY08 XXX
RY97 0
QX19 XXX
DX05 1SS254
DX06 1SS254
DX07 1SS254
DX13 XXX
RXE8 100
RZ98 100
QX52 XXX
QX53 XXX
RXC4 XXX
RXC5 XXX
RXC6 XXX
RXC7 XXX
RXC8 XXX
RXC9 XXX
DX15 XXX
CX67 XXX
(FC HV.BLK)
MASK.SW
4:3 Low
16:9 High
RY27 6.8K
RY28 XXX
RY29 XXX
QX25 XXX
QX26 XXX
RY30 XXX
RY31 XXX
CX77 XXX
LX13 XXX
LX14 XXX
LX19 XXX
CX58 XXX
CX59 XXX
CX78 XXX
RXE4 XXX
QX27 XXX
RY37 100
QX28 2SA673
DX09 MTZ-J9.1C
RY50 0
RY51 XXX
RY52 1K
RY53 1K
RY54 XXX
RY56 XXX
RY44 6.8K
RY45 XXX
RY46 XXX
QX30 XXX
QX31 XXX
CX60 XXX
RY47 XXX
RXF2 XXX
RXF5 XXX
RY48 XXX
CX79 XXX
LX15 XXX
LX16 XXX
CX61 XXX
CX62 XXX
LX20 XXX
RY49 XXX
CX80 XXX
RXE5 XXX
QX32 XXX
RY55 100
QX33 2SA673
RY61 100
DX10 MTZ-J9.1C
9V1
PZV EH4P
VM
GND
(VM.PROT)
GND
CX65 MYL0.1
LX17 100
CX66 47/16
RY62 2.7K
RY63 22K
RY64 18K
RY65 XXX
RY66 XXX
RY67 100
RY68 XXX
QX35 XXX
CX63 1/50BP
QX36 2SC2412K
RY69 330
QX37 2SA1037K
RY70 560
RY71 560
RY72 100
QX38 2SC2412K
RY73 470
RY74 XXX
CX64 XXX
RY75 XXX
RY76 0
RY77 XXX
RY78 XXX
RY79 XXX
QX39 XXX
QX40 XXX
RY80 100
RY81 100
QX41 2SC1213
DX11 1SS254
RY82 1K
RY83 33
DX12 1SS254
VM CLIP
RY84 XXX
RY85 XXX
RY86 XXX
RY87 XXX
RY88 XXX
RY89 XXX
RY90 12K
RY91 XXX
RY92 0
RY93 0
RY94 XXX
QX42 XXX
QX43 XXX
QX44 XXX
QX45 2SC2412K
QX46 2SA1037K
CX68 XXX
CX69 1/50
CX70 XXX
CX71 XXX
CLAMP
MASK
HVBLK
C
D
E
4
5
6

ge to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 2H VIDEO P.W.B.

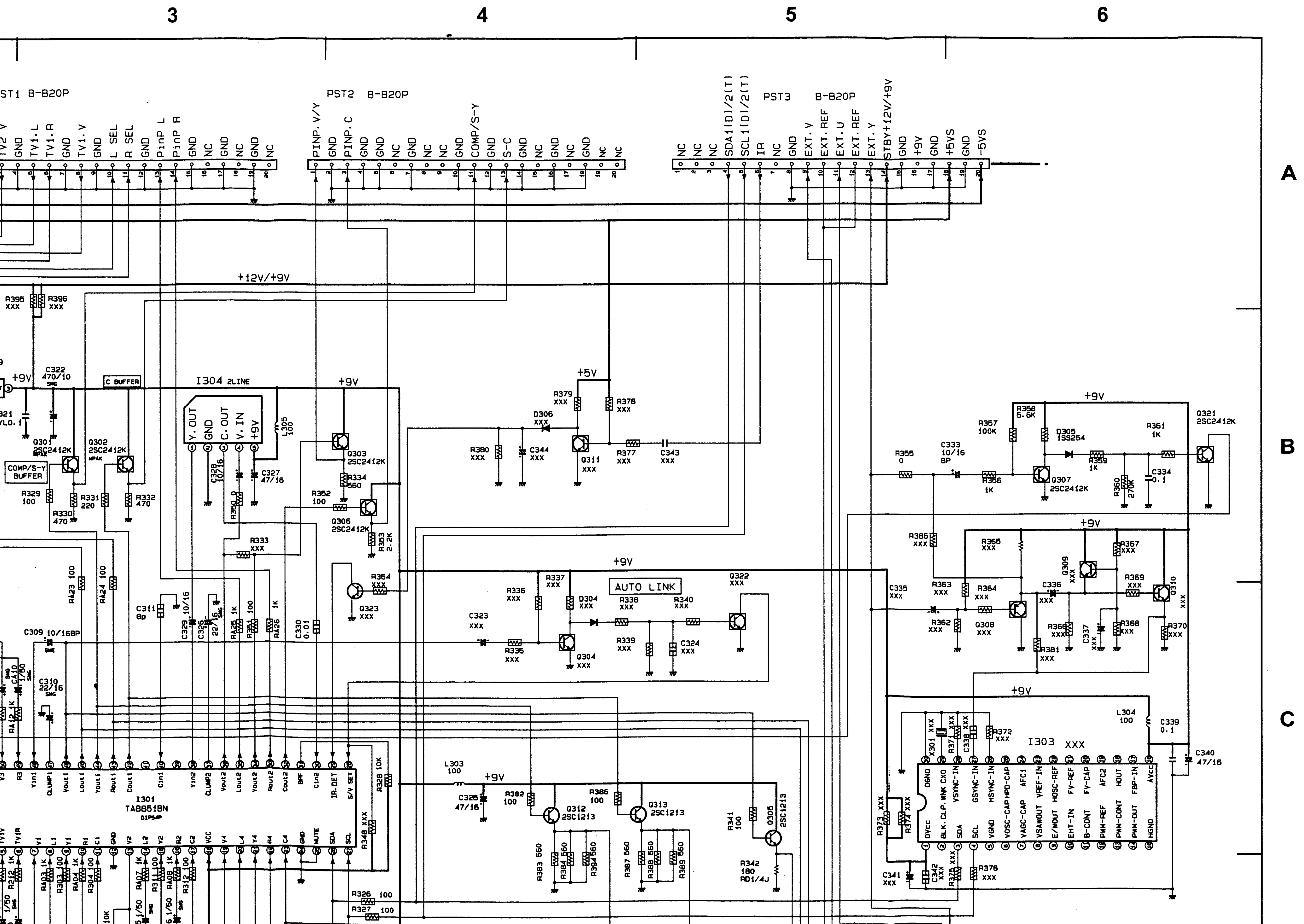
Manual. Don't degrade the safety of the receiver through improper servicing.

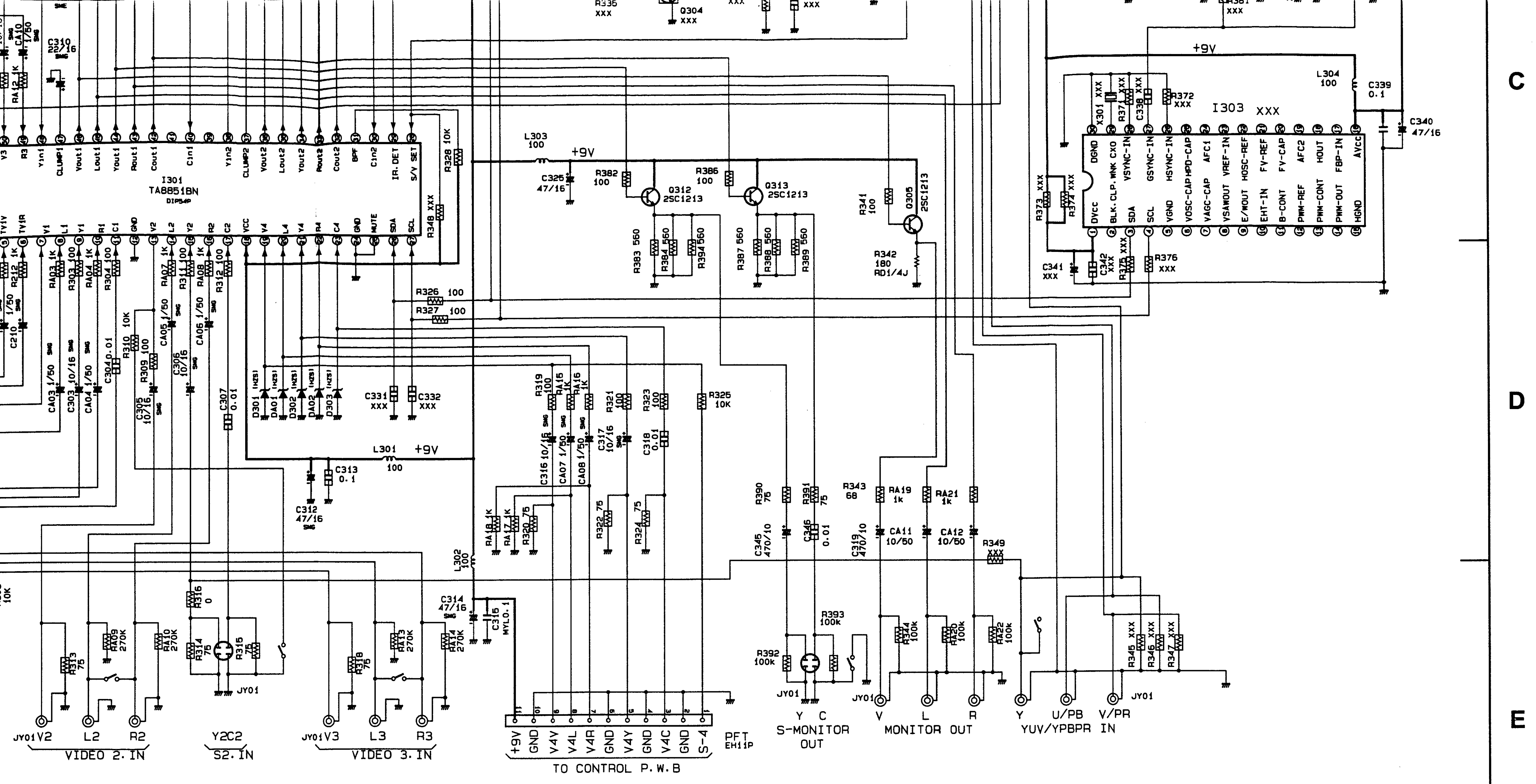

1
2
3
A
B
C
PST1 B-B20P
TV2 MONO
GND
TV2 V
GND
TV1.L
TV1.R
GND
TV1.V
GND
L SEL
R SEL
GND
PinP L
PinP R
GND
NC
GND
NC
GND
NC
PST2 B-B20P
PINP.V/Y
GND
PINP.C
GND
GND
NC
GND
NC
NC
GND
+5V
Q202 XXX
Q201 XXX
L202 XXX
L201 XXX
C202 XXX
C201 XXX
R218 XXX
R219 XXX
R220 XXX
R221 XXX
R203 XXX
R201 XXX
PMT1 XXX
TO TUNER/LINK BOARD
NTSC VIDEO REF
NTSC VIDEO
GND
NTSC R
NTSC R REF
GND
NTSC L
NTSC L REF
I201 XXX
C207 XXX
R202 XXX
V+
V-
R204 XXX
C204 XXX
C203 XXX
R205 XXX
R206 XXX
I202 XXX
R208 XXX
R209 XXX
R210 XXX
R211 XXX
R214 XXX
R213 XXX
R215 XXX
R216 XXX
C205 XXX
C206 XXX
D201 XXX
D202 XXX
+12V/+9V
R395 XXX
R396 XXX
I302 BA17809
IN OUT
+9V
C322 470/10
C321 MYL0.1
C320 0.1 MYL-K
C BUFFER
I304 2LINE
Y.OUT
GND
C.OUT
V.IN
+9V
L305 100
Q301 2SC2412K
Q302 2SC2412K
COMP/S-Y BUFFER
R329 100
R330 470
R331 220
R332 470
C328 10/16
C327 47/16
Q303 2SC2412K
R334 560
R352 100
Q306 2SC2412K
R353 2.2K
R350 0
R333 XXX
R354 XXX
Q323 XXX
RA23 100
RA24 100
C311 8P
C329 10/16
C326 22/16
RA25 1K
R351 100
RA26 1K
C330 0.01
C309 10/16BP
CA09 1/50
C308 10/16
CA10 1/50
C310 22/16
RA11 1K
R317 100
RA12 1K
I301 TA8851BN DIP54P
YUV.DET
L3
V3
R3
Yin1
CLUMP1
Vout1
Lout1
Yout1
Rout1
Cout1
Cin1
Yin2
CLUMP2
Vout2
Lout2
Yout2
Rout2
Cout2
BPF
Cin2
IR.DET
S/V SET
TV2L
TV2V
TV2R
TV1L
TV1V
TV1R
V1
L1
Y1
R1
C1
GND
V2
L2
Y2
R2
C2
VCC
V4
L4
Y4
R4
C4
GND
MUTE
SDA
SCL
R328 10K
R348 XXX
L303 100
C325 47/16
R326 100
R327 100
RA01 1K
R301 100
RA02 1K
R317 1K
R207 100
R212 1K
RA03 1K
R303 100
RA04 1K
R304 100
RA07 1K
R311 100
RA08 1K
R312 100
10K


C
D
E
1
2
3
I301
TA8851BN
DIP54P
YUV.DET
L3
V3
R3
Yin1
CLUMP1
Vout1
Lout1
Yout1
Rout1
Cout1
Cin1
Yin2
CLUMP2
Vout2
Lout2
Yout2
Rout2
Cout2
BPF
Cin2
IR.DET
S/V SET
TV2L
TV2V
TV2R
TV1L
TV1V
TV1R
V1
L1
Y1
R1
C1
GND
V2
L2
Y2
R2
C2
VCC
V4
L4
Y4
R4
C4
MUTE
SDA
SCL
RA11 1K
R317 100
RA12 1K
CA09 1/50
C308 10/16
CA10 1/50
C310 22/16
R328 10K
R348 XXX
L301 +9V
100
C313 0.1
C312 47/16
R326 100
R327 100
C331 XXX
C332 XXX
D301
DA01
D302
DA02
D303
C302 10/16
R302 100
R310 10K
R309 100
C304 0.01
C307 0.01
C305 10/16
C306 10/16
L302 100
C314 47/16
C315 MYL0.1
RA18 1K
RA17 1K
R320 75
R305 75
RA05 270K
RA06 270K
R306 75
R307 75
R308 10K
R313 75
RA09 270K
RA10 270K
R316 0
R314 75
R315 75
R318 75
RA13 270K
RA14 270K
JY01 V1
L1
R1
Y1C1
S 1.IN
VIDEO 1.IN
JY01 V2
L2
R2
Y2C2
S2.IN
VIDEO 2.IN
JY01 V3
L3
R3
VIDEO 3.IN
JY01
+9V
GND

XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltag
- Since this is a basic circuit diagram, the value of the parts is s

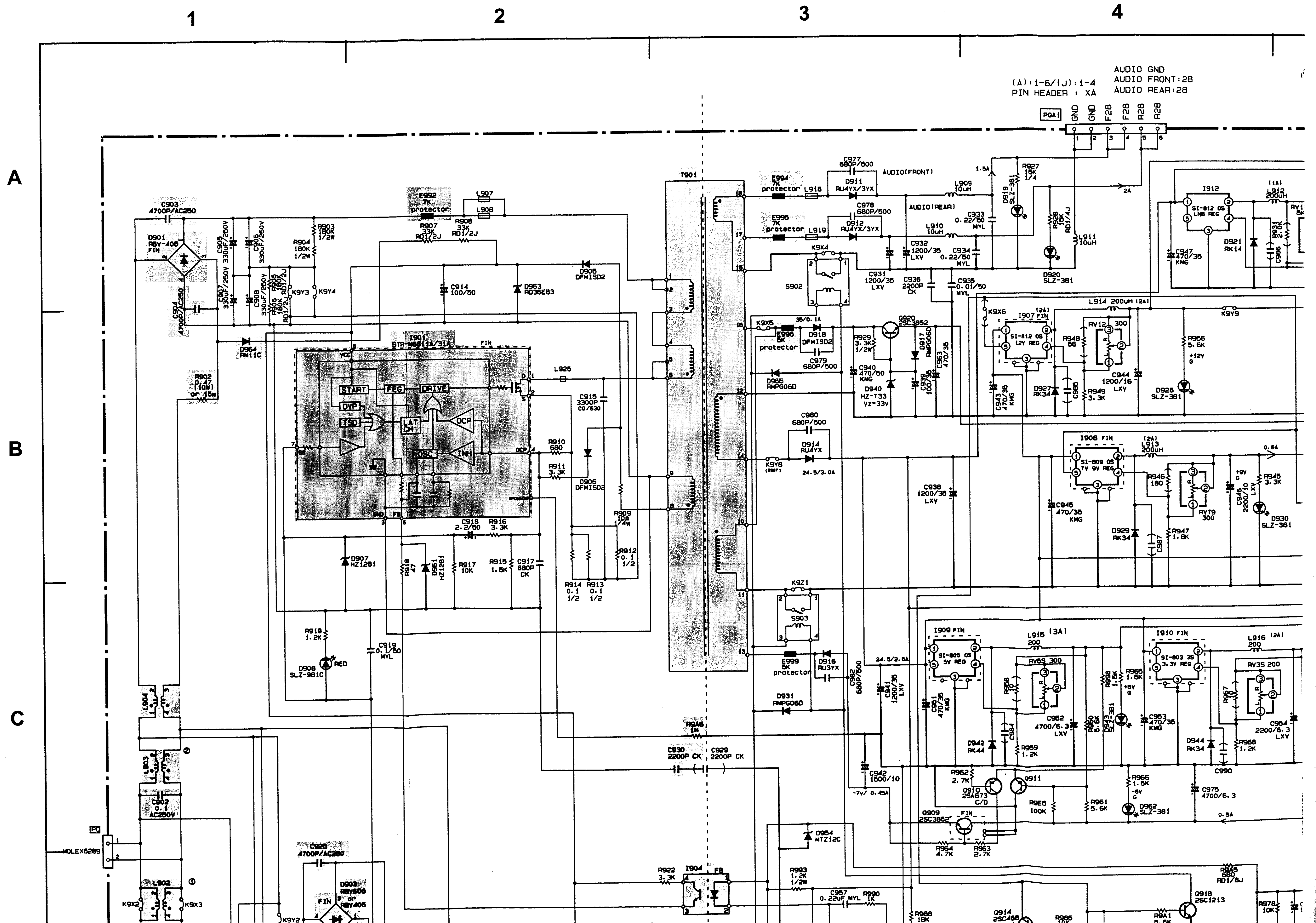

3
4
5
6
A
B
C
PST1 B-B20P
TV2 V
GND
TV1.L
TV1.R
GND
TV1.V
GND
L SEL
R SEL
GND
PinP L
PinP R
GND
NC
GND
NC
GND
NC
PST2 B-B20P
PINP.V/Y
GND
PINP.C
GND
GND
NC
GND
NC
NC
GND
COMP/S-Y
GND
S-C
GND
NC
GND
NC
GND
NC
NC
PST3 B-B20P
NC
NC
NC
SDA1(D)/2(T)
SCL1(D)/2(T)
IR
NC
GND
EXT.V
EXT.REF
EXT.U
EXT.REF
EXT.Y
STBY+12V/+9V
GND
+9V
GND
+5VS
GND
-5VS
+12V/+9V
R395 XXX
R396 XXX
+9V
C322 470/10
C BUFFER
I304 2LINE
Y.OUT
GND
C.OUT
V.IN
+9V
L305 100
C328 10/16
C327 47/16
R350 0
+9V
Q303 2SC2412K
R334 560
R352 100
Q306 2SC2412K
R353 2.2K
R333 XXX
Q301 2SC2412K
Q302 2SC2412K
COMP/S-Y BUFFER
R329 100
R330 470
R331 220
R332 470
+5V
R379 XXX
R378 XXX
D306 XXX
R380 XXX
C344 XXX
Q311 XXX
R377 XXX
C343 XXX
RA23 100
RA24 100
C311 8p
C329 10/16
C326 22/16
RA25 1K
R351 100
RA26 1K
C330 0.01
R364 XXX
Q323 XXX
C309 10/16BP
C310 22/16
CA10 1/50
RA12 1K
+9V
AUTO LINK
R337 XXX
R336 XXX
D304 XXX
R338 XXX
R340 XXX
Q322 XXX
C323 XXX
R335 XXX
Q304 XXX
R339 XXX
C324 XXX
I301
TA8851BN
DIP54P
Yin1
CLUMP1
Vout1
Lout1
Yout1
Rout1
Cout1
Cin1
Yin2
CLUMP2
Vout2
Lout2
Yout2
Rout2
Cout2
BPF
Cin2
IR.DET
S/V SET
TV1V
TV1R
Y1
L1
V1
R1
C1
GND
Y2
L2
V2
R2
C2
VCC
V4
L4
Y4
R4
C4
GND
MUTE
SDA
SCL
R328 10K
R348 XXX
RA03 1K
R303 100
RA04 1K
R304 100
RA07 1K
R311 100
RA09 1K
R312 100
R212 1K
R326 100
R327 100
L303 100
+9V
C325 47/16
R382 100
Q312 2SC1213
R386 100
Q313 2SC1213
R383 560
R384 560
R394 560
R387 560
R388 560
R389 560
R341 100
Q305 2SC1213
R342 180 RD1/4J
+9V
R358 5.6K
R357 100K
D305 1SS254
R361 1K
Q321 2SC2412K
R355 0
C333 10/16 BP
R356 1K
Q307 2SC2412K
R359 1K
R360 270K
C334 0.1
+9V
R385 XXX
R365 XXX
R367 XXX
Q309 XXX
R369 XXX
Q310 XXX
C335 XXX
R363 XXX
R364 XXX
C336 XXX
R362 XXX
Q308 XXX
R366 XXX
C337 XXX
R368 XXX
R370 XXX
R381 XXX
+9V
L304 100
C339 0.1
C340 47/16
X301 XXX
R371 XXX
C338 XXX
R372 XXX
I303 XXX
DGND
BLK.CLP.WNK CXO
VSYNC-IN
GSYNC-IN
HSYNC-IN
VOSC-CAP
HPD-CAP
AFC1
VREF-IN
HOSC-REF
FV-REF
FV-CAP
AFC2
HOUT
FBP-IN
AVcc
DVcc
BLK.CLP.WNK
SDA
SCL
VGND
VOSC-CAP
VAGC-CAP
VSAWOUT
EHT-IN
B-CONT
PWM-REF
PWM-CONT
PWM-OUT
HGND
R373 XXX
R374 XXX
C341 XXX
C342 XXX
R375 XXX
R376 XXX

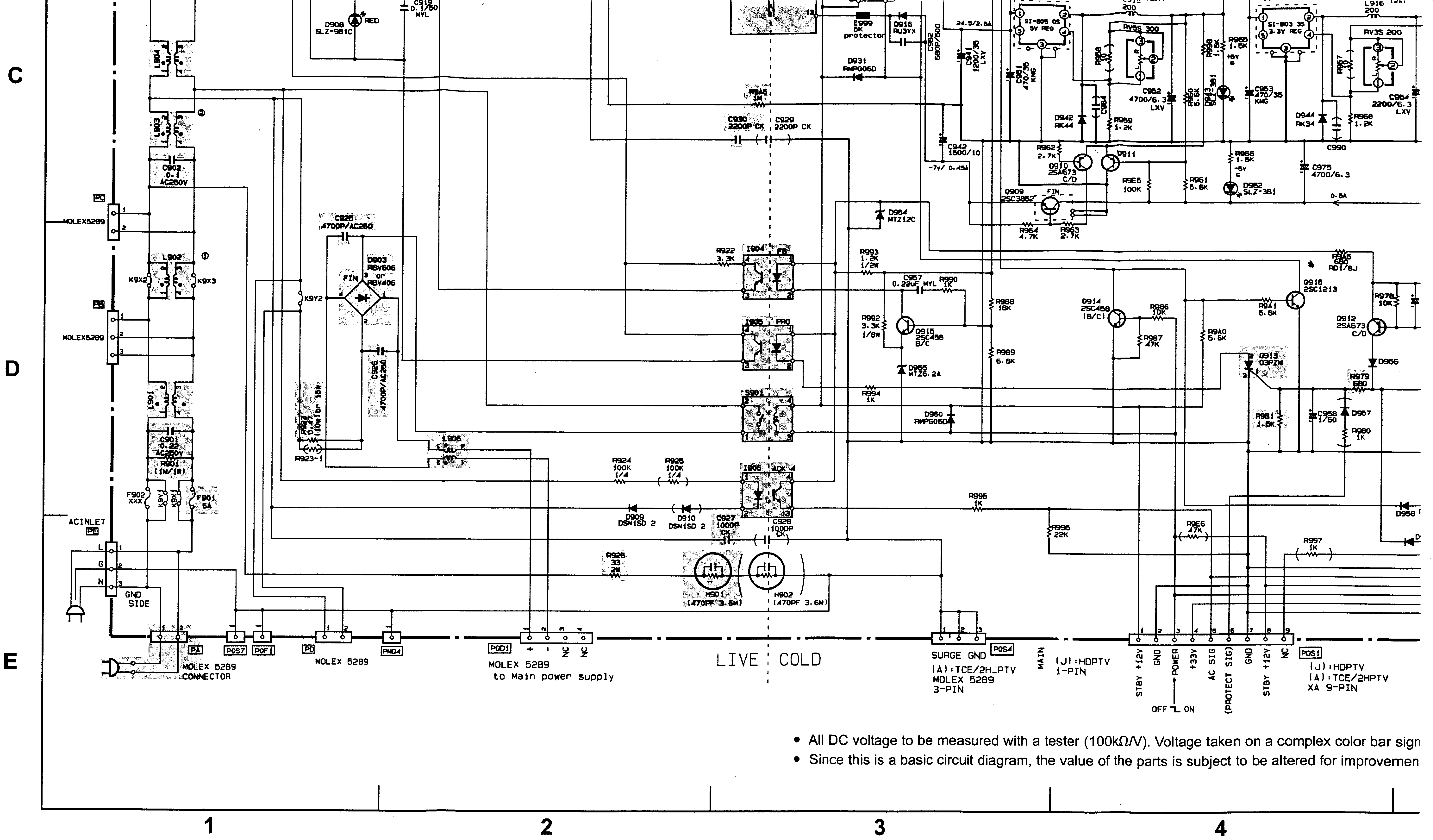

C
D
E
I301
TA8851BN
DIP54P
I303 XXX
Q312 2SC1213
Q313 2SC1213
Q305 2SC1213
Q304 XXX
L301 100
L302 100
L303 100
L304 100
+9V
C310 22/16
C325 47/16
C339 0.1
C340 47/16
C341 XXX
C342 XXX
C312 47/16
C313 0.1
C314 47/16
C315 MYL0.1
C331 XXX
C332 XXX
C307 0.01
C345 470/10
C346 0.01
C319 470/10
CA11 10/50
CA12 10/50
R326 100
R327 100
R328 10K
R348 XXX
R382 100
R386 100
R383 560
R384 560
R394 560
R387 560
R388 560
R389 560
R341 100
R342 180 RD1/4J
R343 68
R349 XXX
R390 75
R391 75
R392 100k
R393 100k
R325 10K
R316 0
R313 75
R314 75
R315 75
R318 75
RA09 270K
RA10 270K
RA13 270K
RA14 270K
RA19 1k
RA21 1k
R344 100k
RA20 100k
RA22 100k
R345 XXX
R346 XXX
R347 XXX
R372 XXX
R373 XXX
R374 XXX
R375 XXX
R376 XXX
X301 XXX
D301
D302
D303
DA01
DA02
JY01
V2
L2
R2
VIDEO 2. IN
Y2C2
S2. IN
V3
L3
R3
VIDEO 3. IN
+9V
GND
V4Y
V4L
V4R
GND
V4Y
GND
V4C
GND
S-4
PFT
EH11P
TO CONTROL P.W.B
Y
C
S-MONITOR OUT
V
L
R
MONITOR OUT
Y
U/PB
V/PR
YUV/YPBPR IN
DGND
BLK.CLP.WNK CXO
VSYNC-IN
GSYNC-IN
HSYNC-IN
VOSC-CAP
HPD-CAP
AFC1
VREF-IN
HOSC-REF
FV-REF
FV-CAP
AFC2
HOUT
FBP-IN
AVcc
DVcc
SDA
SCL
VGND
VAGC-CAP
VSAWOUT
E/WOUT
EHT-IN
B-CONT
PWM-REF
PWM-CONT
PWM-OUT
HGND
Yin1
CLUMP1
Vout1
Lout1
Yout1
Rout1
Cout1
Cin1
Yin2
CLUMP2
Vout2
Lout2
Yout2
Rout2
Cout2
BPF
Cin2
IR.DET
S/V SET
GND
MUTE
VCC

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 TERMINAL P.W.B.

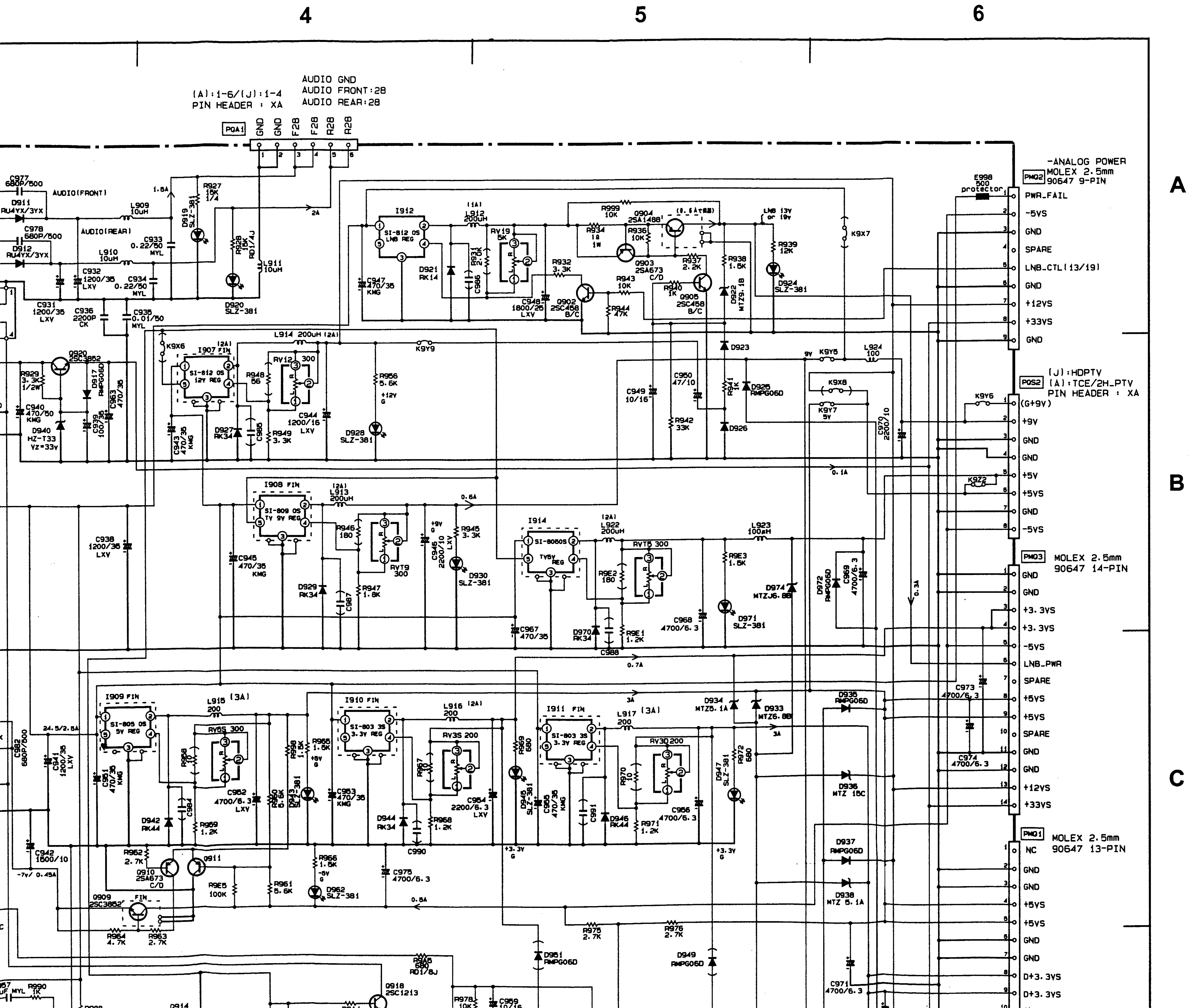
3 4 5 6

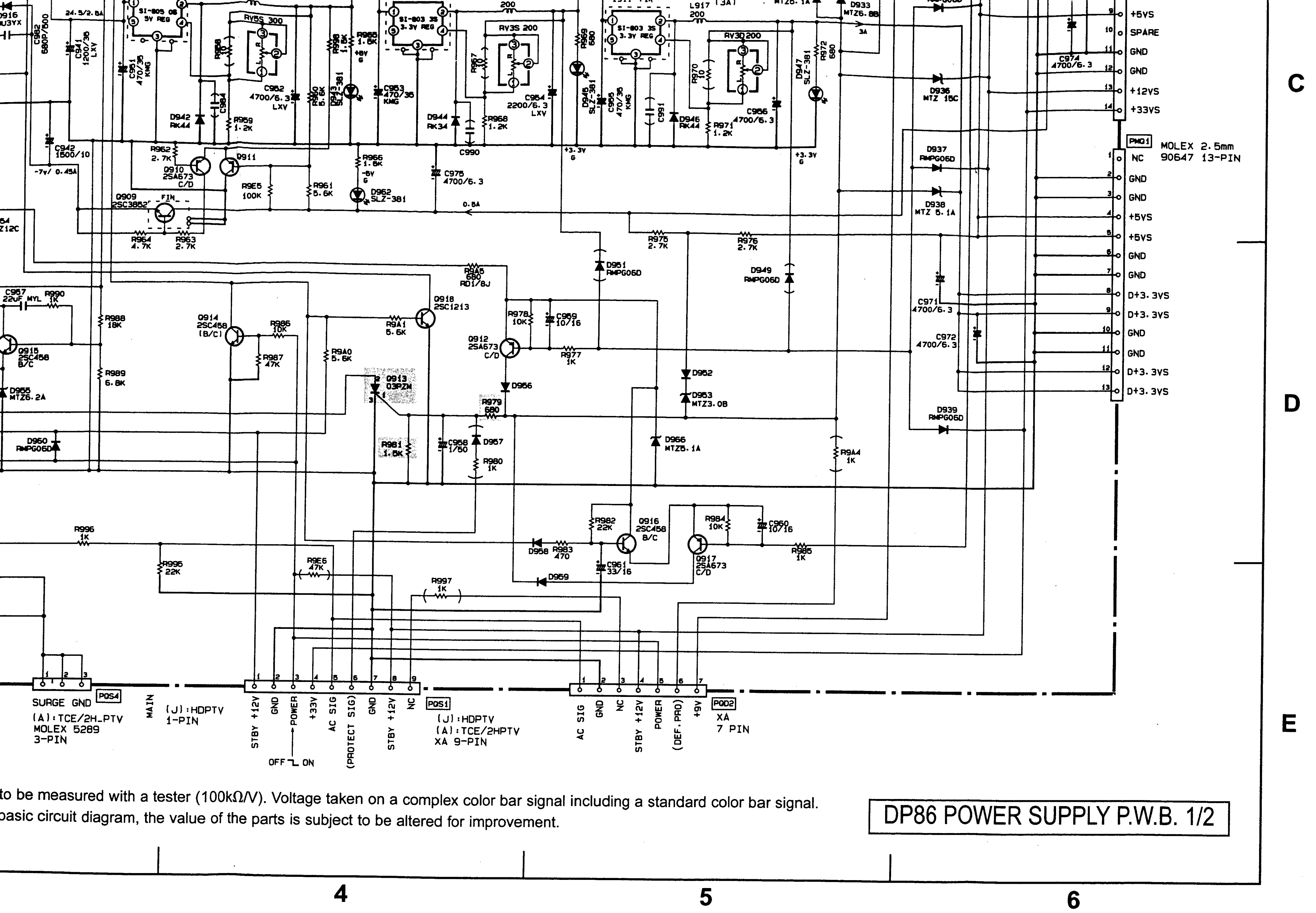

1
2
3
4
A
B
C
(A):1-6/(J):1-4
PIN HEADER : XA
AUDIO GND
AUDIO FRONT:28
AUDIO REAR:28
PQA1
GND
GND
F28
F28
R28
R28
C903
4700P/AC250
D901
RBV-406
FIN
C905
330uF/250V
C906
330uF/250V
C907
330uF/250V
C908
C904
4700P/AC250
R903
180K
1/2W
R904
180K
1/2W
R905
R906
180K
RD1/2J
K9Y3
K9Y4
E992
7K
protector
L907
L908
R907
33K
RD1/2J
R908
33K
RD1/2J
D905
DFM1SD2
C914
100/50
D963
RD36EB3
D964
RM11C
R902
0.47
(10W)
or 15W
I901
STR-M6811A/31A
FIN
VCC
START
FEG
DRIVE
OVP
TSD
LATCH
OCP
OSC
INH
SS
OCP
GND
FB
L925
C915
3300P
CG/630
R910
680
R911
3.3K
D906
DFM1SD2
R909
10Ω
1/4W
R912
0.1
1/2
R914
0.1
1/2
R913
0.1
1/2
C918
2.2/50
R916
3.3K
D907
HZ12B1
R918
47
D961
HZ12B1
R917
10K
R915
1.5K
C917
680P
CK
R919
1.2K
D908
SLZ-981C
RED
C919
0.1/50
MYL
T901
E994
7K
protector
L918
C977
680P/500
D911
RU4YX/3YX
AUDIO(FRONT)
L909
10uH
1.5A
D919
SLZ-381
R927
15K
1/4
2A
E995
7K
protector
L919
C978
680P/500
D912
RU4YX/3YX
AUDIO(REAR)
C933
0.22/50
MYL
L910
10uH
R928
15K
RD1/4J
L911
10uH
C932
1200/35
LXV
C934
0.22/50
MYL
D920
SLZ-381
K9X4
S902
C931
1200/35
LXV
C936
2200P
CK
C935
0.01/50
MYL
K9X5
E996
5K
protector
35/0.1A
D918
DFM1SD2
C979
680P/500
R929
3.3K
1/2W
Q920
2SC3852
D917
RMPG06D
C963
470/35
D965
RMPG06D
C940
470/50
KMG
D940
HZ-T33
Vz=33v
C939
100/35
C980
680P/500
D914
RU4YX
K9Y8
24.5/3.0A
C938
1200/35
LXV
K9Z1
S903
E999
5K
protector
D916
RU3YX
C982
680P/500
24.5/2.8A
C941
1200/35
LXV
D931
RMPG06D
R9A5
1W
C930
2200P CK
C929
2200P CK
C942
1500/10
-7v/ 0.45A
D984
MTZ12C
R922
3.3K
I904
FB
R993
1.2K
1/2W
C987
0.22uF MYL
R990
1K
R988
18K
I912
SI-812 0S
LNB REG
(1A)
L912
200uH
RV1
5K
C947
470/35
KMG
D921
RK14
R931
2.2K
C986
K9X6
I907 FIN
(2A)
SI-812 0S
12V REG
L914 200uH (2A)
K9Y9
R948
56
RV12
300
R956
5.6K
+12V
G
C943
470/35
KMG
D927
RK34
C985
R949
3.3K
C944
1200/16
LXV
D928
SLZ-381
I908 FIN
SI-809 0S
TV 9V REG
(2A)
L913
200uH
0.6A
R946
180
+9V
G
C946
2200/10
LXV
R945
3.3K
C945
470/35
KMG
RVT9
300
D930
SLZ-381
D929
RK34
C987
R947
1.8K
I909 FIN
SI-805 0S
5V REG
L915
200
(3A)
RV5S 300
R958
10
R998
1.5K
R965
1.5K
+5V
G
C961
470/35
KMG
D942
RK44
C984
R959
1.2K
C962
4700/6.3
LXV
R960
5.6K
D943
SLZ-381
C953
470/35
KMG
I910 FIN
SI-803 3S
3.3V REG
L916
200
(2A)
RV3S 200
R967
10
D944
RK34
C990
R968
1.2K
C964
2200/6.3
LXV
R962
2.7K
Q910
2SA673
C/D
Q911
R9E5
100K
R961
5.6K
R966
1.5K
-5V
G
D962
SLZ-381
C975
4700/6.3
0.8A
Q909
2SC3852
FIN
R964
4.7K
R963
2.7K
R9A6
680
RD1/8J
Q918
2SC1213
R978
10K
R9A1
5.6K
Q914
2SC458
R986
L904
L903
C902
0.1
AC250V
PC
MOLEX5289
L902
K9X2
K9X3
K9Y2
C926
4700P/AC250
D903
RBV606
or
RBV406
FIN


C
D
E
1
2
3
4
D908
SLZ-981C
RED
C919
0.1/50
MYL
L904
L903
C902
0.1
AC250V
PC
MOLEX5289
L902
K9X2
K9X3
PB
MOLEX5289
L901
C901
0.22
AC250V
R901
(1W/1W)
F902
XXX
K9Y1
K9X1
F901
6A
ACINLET
PE
L
G
N
GND
SIDE
PA
MOLEX 5289
CONNECTOR
POS7
POF1
PD
MOLEX 5289
PMO4
C925
4700P/AC250
D903
RBV606
or
RBV406
FIN
K9Y2
C926
4700P/AC250
R923
0.47
(10W)or 15W
R923-1
L906
POD1
MOLEX 5289
to Main power supply
NC
R924
100K
1/4
R925
100K
1/4
D909
DSM1SD 2
D910
DSM1SD 2
C927
1000P
CK
C928
1000P
CK
R926
33
2W
H901
(470PF 3.6M)
H902
(470PF 3.6M)
LIVE
COLD
E999
6K
protector
D916
RU3YX
D931
RMPG06D
R9A6
1M
C930
2200P CK
C929
2200P CK
R922
3.3K
I904
FB
I905
PRO
S901
I906
ACK
D964
MTZ12C
R993
1.2K
1/2W
C957
0.22uF MYL
R990
1K
R992
3.3K
1/8W
Q915
2SC458
B/C
D955
MTZ6.2A
R994
1K
D960
RMPG06D
R996
1K
R995
22K
R988
18K
R989
6.8K
SURGE GND
POS4
(A):TCE/2H_PTV
MOLEX 5289
3-PIN
MAIN
(J):HDPTV
1-PIN
C982
680P/500
24.5/2.6A
C941
1200/35
LXY
C951
470/35
KMG
SI-805 0S
5V REG
RV5S 300
R968
C984
D942
RK44
R959
1.2K
C952
4700/6.3
LXY
C942
1500/10
-7V/ 0.45A
R962
2.7K
Q910
2SA673
C/D
Q911
Q909
2SC3852
FIN
R964
4.7K
R963
2.7K
R9E5
100K
R961
5.6K
R998
R9A0
5.6K
D943
SLZ-381
R965
1.8K
+8V
G
C953
470/35
KMG
R966
1.8K
-8V
G
D962
SLZ-381
SI-803 3S
3.3V REG
RV3S 200
R967
D944
RK34
R958
1.2K
C990
C975
4700/6.3
0.8A
L916
200
C954
2200/6.3
LXY
Q914
2SC458
(B/C)
R986
10K
R987
47K
R9A1
5.6K
Q918
2SC1213
R9A5
680
RD1/8J
R978
10K
Q912
2SA673
C/D
D966
Q913
03P2M
R979
680
R981
1.8K
C958
1/50
D967
R980
1K
D968
R9E6
47K
R997
1K
STBY +12V
GND
POWER
+33V
AC SIG
(PROTECT SIG)
GND
STBY +12V
NC
OFF
ON
POS1
(J):HDPTV
(A):TCE/2HPTV
XA 9-PIN

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sign
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemen

Manual. Don't degrade the safety of the receiver through improper servicing.

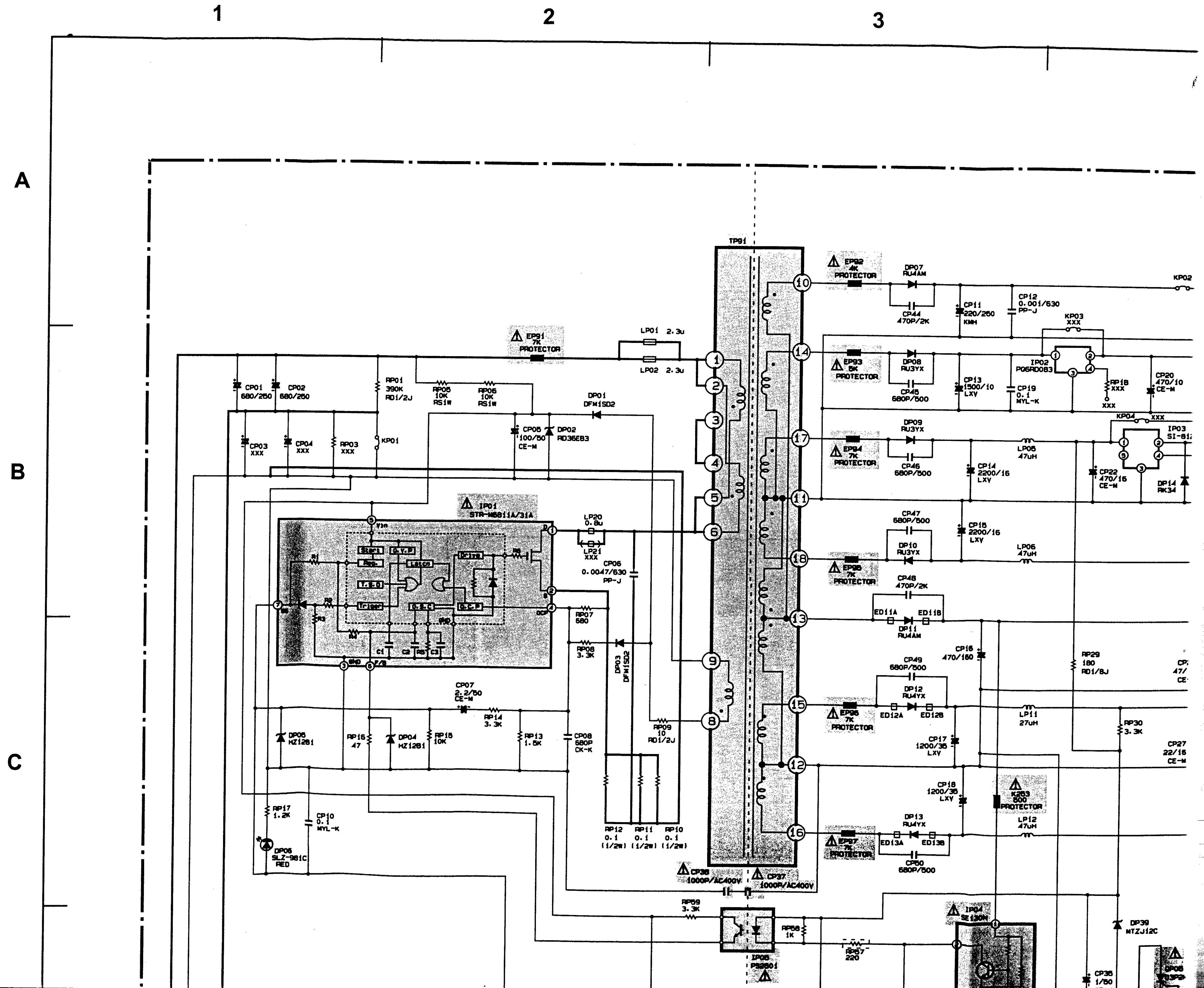

4
5
6
A
B
C
(A):1-6/(J):1-4
PIN HEADER : XA
AUDIO GND
AUDIO FRONT:28
AUDIO REAR:28
PQA1
GND
GND
F28
F28
R28
R28
-ANALOG POWER
PMQ2
MOLEX 2.5mm
90647 9-PIN
E998
500
protector
PWR_FAIL
-5VS
GND
SPARE
LNB_CTL(13/19)
GND
+12VS
+33VS
GND
PQS2
(J):HDPTV
(A):TCE/2H_PTV
PIN HEADER : XA
(G+9V)
+9V
GND
GND
+5V
+5VS
GND
-5VS
PMQ3
MOLEX 2.5mm
90647 14-PIN
GND
GND
+3.3VS
+3.3VS
-5VS
LNB_PWR
SPARE
+5VS
+5VS
SPARE
GND
GND
+12VS
+33VS
PMQ1
MOLEX 2.5mm
90647 13-PIN
NC
GND
GND
+5VS
+5VS
GND
GND
D+3.3VS
D+3.3VS
AUDIO(FRONT)
AUDIO(REAR)
C977 680P/500
D911 RU4YX/3YX
C978 680P/500
D912 RU4YX/3YX
L909 10uH
L910 10uH
C933 0.22/50 MYL
C934 0.22/50 MYL
C932 1200/35 LXV
C931 1200/35 LXV
C936 2200P CK
C935 0.01/50 MYL
R927 15K 1/4
D919 SLZ-381
R928 15K RD1/4J
L911 10uH
D920 SLZ-381
1.8A
2A
I912
SI-812 0S LNB REG
L912 200uH
(1A)
RV19 5K
R931 2.0K
D921 RK14
C947 470/35 KMG
C986
C948 1800/25 LXV
Q902 2SC458 B/C
R932 3.3K
R999 10K
R934 10 1W
R936 10K
Q904 2SA1488
(0.6A)
Q903 2SA673 C/D
R937 2.2K
R943 10K
R944 47K
R940 1K
Q905 2SC458 B/C
R938 1.8K
D922 MTZ9.1B
LNB 13V or 19V
R939 12K
D924 SLZ-381
K9X7
K9X6
I907 FIN
(2A)
SI-812 0S 12V REG
L914 200uH (2A)
RV12 300
R948 56
R949 3.3K
C944 1200/16 LXV
D927 RK34
C985
C943 470/35 KMG
K9Y9
R956 5.6K
+12V G
D928 SLZ-381
D923
C949 10/16
C950 47/10
R942 33K
R941 1K
D925 RMPG06D
D926
9V
K9Y5
L924 100
K9X8
K9Y7 5V
K9Y6
C979 2200/10
0.1A
K9Z2
Q920 2SC3852
R929 3.3K 1/2W
D917 RMPG06D
C963 470/35
C940 470/50 KMG
C939 100/35
D940 HZ-T33 Vz=33V
C938 1200/35 LXV
I908 FIN
SI-809 0S TV 9V REG
L913 200uH
(2A)
R946 180
RVT9 300
R947 1.8K
D929 RK34
C987
C945 470/35 KMG
+9V G
C946 2200/10 LXV
R945 3.3K
D930 SLZ-381
0.6A
I914
SI-8060S TV5V REG
L922 200uH
(2A)
RVT5 300
R9E2 180
R9E1 1.2K
D970 RK34
C988
C967 470/35
L923 100uH
R9E3 1.8K
D971 SLZ-381
C968 4700/6.3
D974 MTZJ6.8B
D972 RMPG06D
C969 4700/6.3
0.3A
0.7A
I909 FIN
SI-805 0S 5V REG
L915 200 (3A)
RV5S 300
R958 10
C982 680P/500
C941 1200/35 LXV
24.5/2.8A
C981 470/35 KMG
D942 RK44
C984
C962 4700/6.3 LXV
R959 1.2K
R960 5.6K
R965 1.5K
+8V G
D943 SLZ-381
C983 470/35 KMG
I910 FIN
SI-803 3S 3.3V REG
L916 200 (2A)
RV3S 200
R967 10
C964 2200/6.3 LXV
D944 RK34
C990
R968 1.2K
R969 680
D945 SLZ-381
C965 470/35 KMG
I911 FIN
SI-803 3S 3.3V REG
L917 200 (3A)
RV3D 200
R970 10
C991
D946 RK44
R971 1.2K
C966 4700/6.3
3A
D934 MTZ5.1A
D933 MTZ6.8B
D947 SLZ-381
R972 680
D935 RMPG06D
D936 MTZ 15C
D937 RMPG06D
D938 MTZ 5.1A
C973 4700/6.3
C974 4700/6.3
C971 4700/6.3
C942 1500/10
-7V/0.45A
R962 2.7K
Q910 2SA673 C/D
Q911
R9E5 100K
R961 5.6K
R966 1.5K
-5V G
D962 SLZ-381
C975 4700/6.3
0.8A
+3.3V G
+3.3V G
Q909 2SC3852 FIN
R964 4.7K
R963 2.7K
R975 2.7K
R976 2.7K
D961 RMPG06D
D949 RMPG06D
R9A6 680 RD1/8J
Q918 2SC1213
R978 10K
C959 10/16
R990 1K
Q914

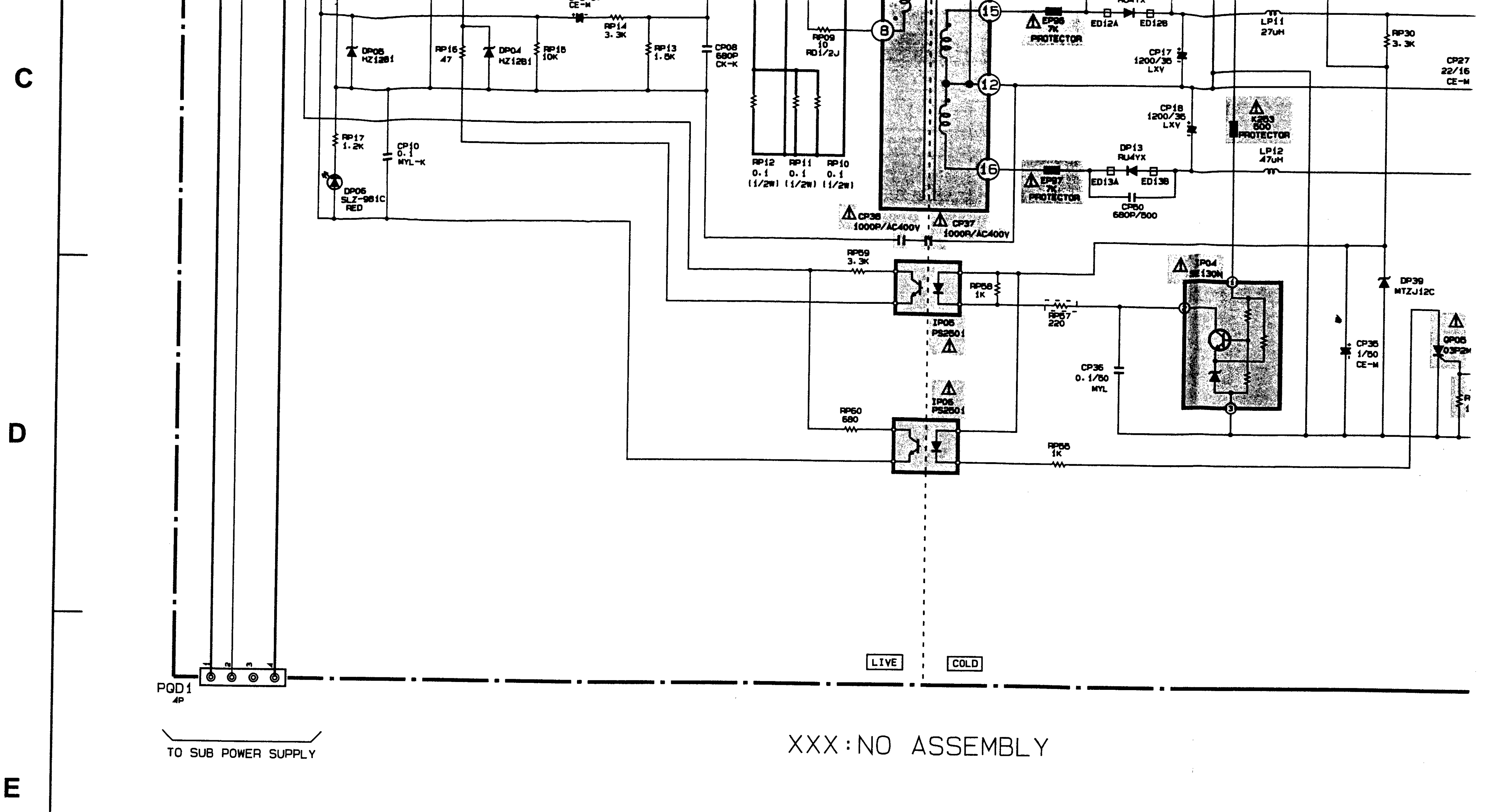

SI-805 0S 5V REG
SI-803 3S 3.3V REG
SI-803 3S 3.3V REG
RV5S 300
RV3S 200
RV3D 200
L917 200
D933 MTZ6.8B
C982 4700/6.3 LXV
C953 470/35 KMG
C984 2200/6.3 LXV
C986 4700/6.3
C995 470/35 KMG
C991
C990
C975 4700/6.3
C942 1500/10
C951 470/35 KMG
C941 1200/35 LXV
C962 680P/500
D916
D942 RK44
D944 RK34
D946 RK44
D943 SLZ-381
D945 SLZ-381
D947 SLZ-381
D962 SLZ-381
R959 1.2K
R968 1.2K
R971 1.2K
R962 2.7K
R966 1.8K
R965 1.8K
R961 5.6K
R9E5 100K
R964 4.7K
R963 2.7K
R969 680
R972 680
Q910 2SA673 C/D
Q911
Q909 2SC3852
+5V
-5V
+3.3V
-7V/ 0.45A
24.5/2.8A
0.8A
3A
C957 22uF MYL
R990 1K
R988 18K
R989 6.8K
Q915 2SC458 B/C
D955 MTZ6.2A
D960 RMPG06D
Q914 2SC458 (B/C)
R986 10K
R987 47K
R9A0 5.6K
R9A1 5.6K
R9A5 680 RD1/8J
Q918 2SC1213
Q913 03PZM
R981 1.8K
C958 1/50
D957
R980 1K
R979 680
D956
Q912 2SA673 C/D
R978 10K
C959 10/16
R977 1K
D951 RMPG06D
R975 2.7K
R976 2.7K
D949 RMPG06D
D952
D953 MTZ3.0B
D966 MTZ5.1A
R9A4 1K
R996 1K
R995 22K
R9E6 47K
R997 1K
R982 22K
Q916 2SC458 B/C
D958
R983 470
C961 33/16
D959
R984 10K
C960 10/16
Q917 2SA673 C/D
R985 1K
D936 MTZ 15C
D937 RMPG06D
D938 MTZ 5.1A
D939 RMPG06D
C974 4700/6.3
C971 4700/6.3
C972 4700/6.3
9 +5VS
10 SPARE
11 GND
12 GND
13 +12VS
14 +33VS
PMQ1
MOLEX 2.5mm 90647 13-PIN
1 NC
2 GND
3 GND
4 +5VS
5 +5VS
6 GND
7 GND
8 D+3.3VS
9 D+3.3VS
10 GND
11 GND
12 D+3.3VS
13 D+3.3VS
1 2 3
SURGE GND
PQS4
(A):TCE/2H_PTV
MOLEX 5289
3-PIN
MAIN
(J):HDPTV
1-PIN
1 STBY +12V
2 GND
3 POWER
4 +33V
5 AC SIG
6 (PROTECT SIG)
7 GND
8 STBY +12V
9 NC
OFF ON
PQS1
(J):HDPTV
(A):TCE/2HPTV
XA 9-PIN
1 AC SIG
2 GND
3 NC
4 STBY +12V
5 POWER
6 (DEF.PRO)
7 +9V
PQD2
XA
7 PIN
C
D
E
4
5
6

to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 POWER SUPPLY P.W.B. 1/2

Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
A
B
C
TP91
EP91 7K PROTECTOR
LP01 2.3u
LP02 2.3u
CP01 680/250
CP02 680/250
RP01 390K RD1/2J
RP05 10K RS1W
RP06 10K RS1W
DP01 DFM1SD2
CP03 XXX
CP04 XXX
RP03 XXX
KP01
CP05 100/50 CE-M
DP02 RD36EB3
IP01 STR-M6811A/31A
Vin
Start
O.V.P
Reg.
Latch
Drive
T.S.D
Trigger
O.S.C
O.C.P
GND
F/B
OCP
D
S
R1
R2
R3
R4
R5
R6
C1
C2
C3
LP20 0.8u
LP21 XXX
CP06 0.0047/630 PP-J
RP07 680
RP08 3.3K
DP03 DFM1SD2
CP07 2.2/50 CE-M
RP14 3.3K
RP09 10 RD1/2J
DP05 HZ12B1
RP16 47
DP04 HZ12B1
RP15 10K
RP13 1.5K
CP08 680P CK-K
RP12 0.1 (1/2W)
RP11 0.1 (1/2W)
RP10 0.1 (1/2W)
RP17 1.2K
CP10 0.1 MYL-K
DP06 SLZ-981C RED
CP36 1000P/AC400V
CP37 1000P/AC400V
RP59 3.3K
RP58 1K
IP05 PS2501
RP57 220
EP92 4K PROTECTOR
DP07 RU4AM
CP44 470P/2K
CP11 220/250 KMH
CP12 0.001/630 PP-J
KP02
KP03 XXX
EP93 5K PROTECTOR
DP08 RU3YX
CP45 680P/500
CP13 1500/10 LXV
CP19 0.1 MYL-K
IP02 P06RD083
RP18 XXX
XXX
CP20 470/10 CE-M
KP04 XXX
IP03 SI-81
EP94 7K PROTECTOR
DP09 RU3YX
CP46 680P/500
CP14 2200/16 LXV
LP05 47uH
CP22 470/16 CE-M
DP14 RK34
CP47 680P/500
CP15 2200/16 LXV
DP10 RU3YX
EP95 7K PROTECTOR
LP06 47uH
CP48 470P/2K
ED11A
ED11B
DP11 RU4AM
CP16 470/160
CP49 680P/500
RP29 180 RD1/8J
CP 47/ CE
DP12 RU4YX
EP96 7K PROTECTOR
ED12A
ED12B
LP11 27uH
RP30 3.3K
CP17 1200/35 LXV
CP27 22/16 CE-M
CP18 1200/35 LXV
K263 500 PROTECTOR
DP13 RU4YX
LP12 47uH
EP97 7K PROTECTOR
ED13A
ED13B
CP50 680P/500
IP04 SE130N
DP39 MTZJ12C
CP35 1/50
DP08
10
14
17
11
18
13
15
12
16
9
8
6
5
4
3
2
1


C
D
E
CE-M
RP14
3.3K
DP08
HZ12B1
RP16
47
DP04
HZ12B1
RP15
10K
RP13
1.8K
CP08
680P
CK-K
RP09
10
RD1/2J
RP17
1.2K
CP10
0.1
MYL-K
DP05
SLZ-981C
RED
RP12
0.1
(1/2W)
RP11
0.1
(1/2W)
RP10
0.1
(1/2W)
CP38
1000P/AC400V
CP37
1000P/AC400V
EP96
7K
PROTECTOR
ED12A
ED12B
LP11
27uH
RP30
3.3K
CP27
22/16
CE-M
CP17
1200/35
LXY
CP18
1200/35
LXY
K263
600
PROTECTOR
LP12
47uH
DP13
RU4YX
EP97
7K
PROTECTOR
ED13A
ED13B
CP50
680P/500
RP59
3.3K
RP58
1K
IP05
PS2601
RP57
220
IP04
SE130N
DP39
MTZJ12C
CP35
1/50
CE-M
CP36
0.1/50
MYL
QP05
03P2M
IP06
PS2601
RP60
680
RP55
1K
LIVE
COLD
PQD1
4P
TO SUB POWER SUPPLY

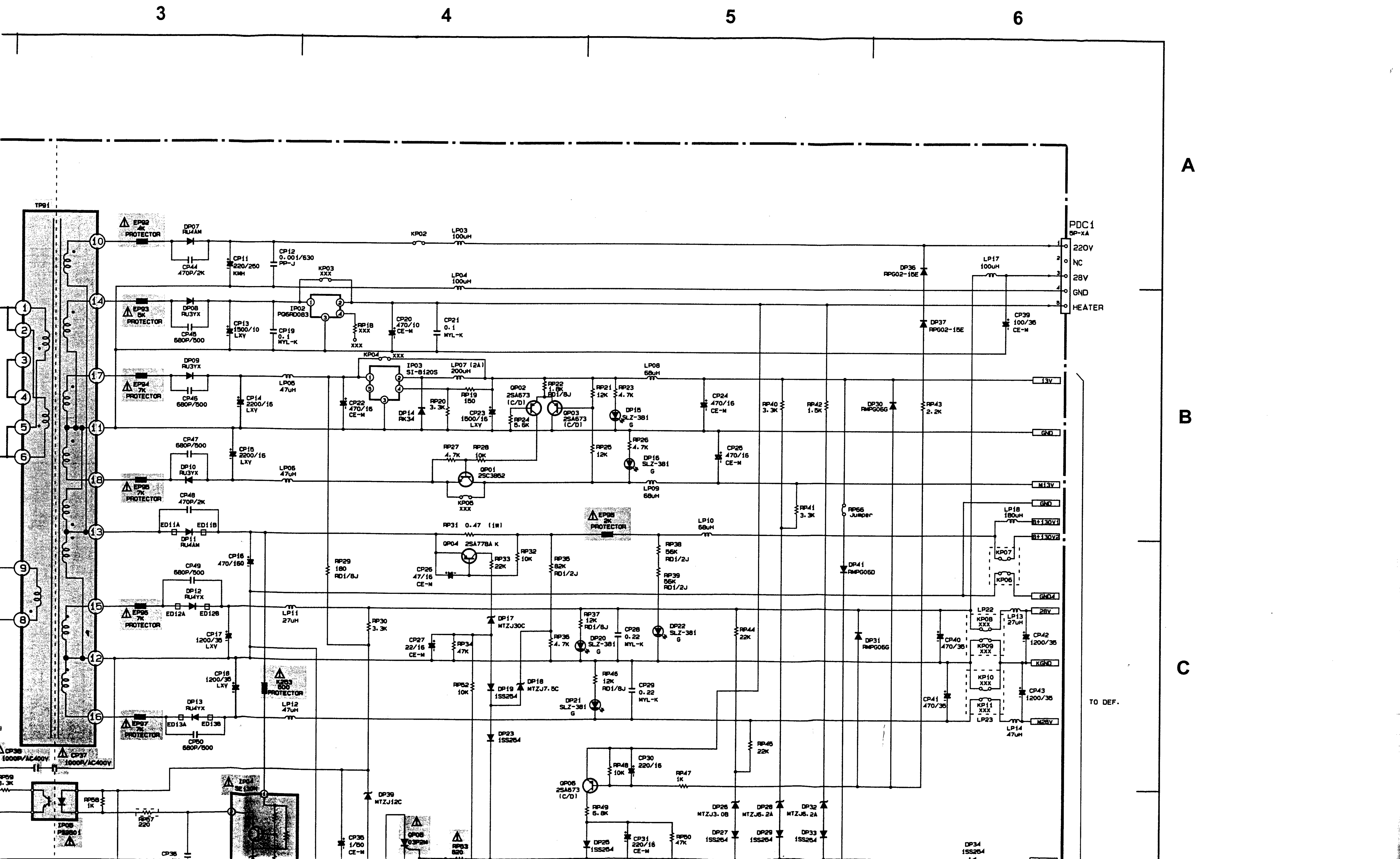
XXX:NO ASSEMBLY

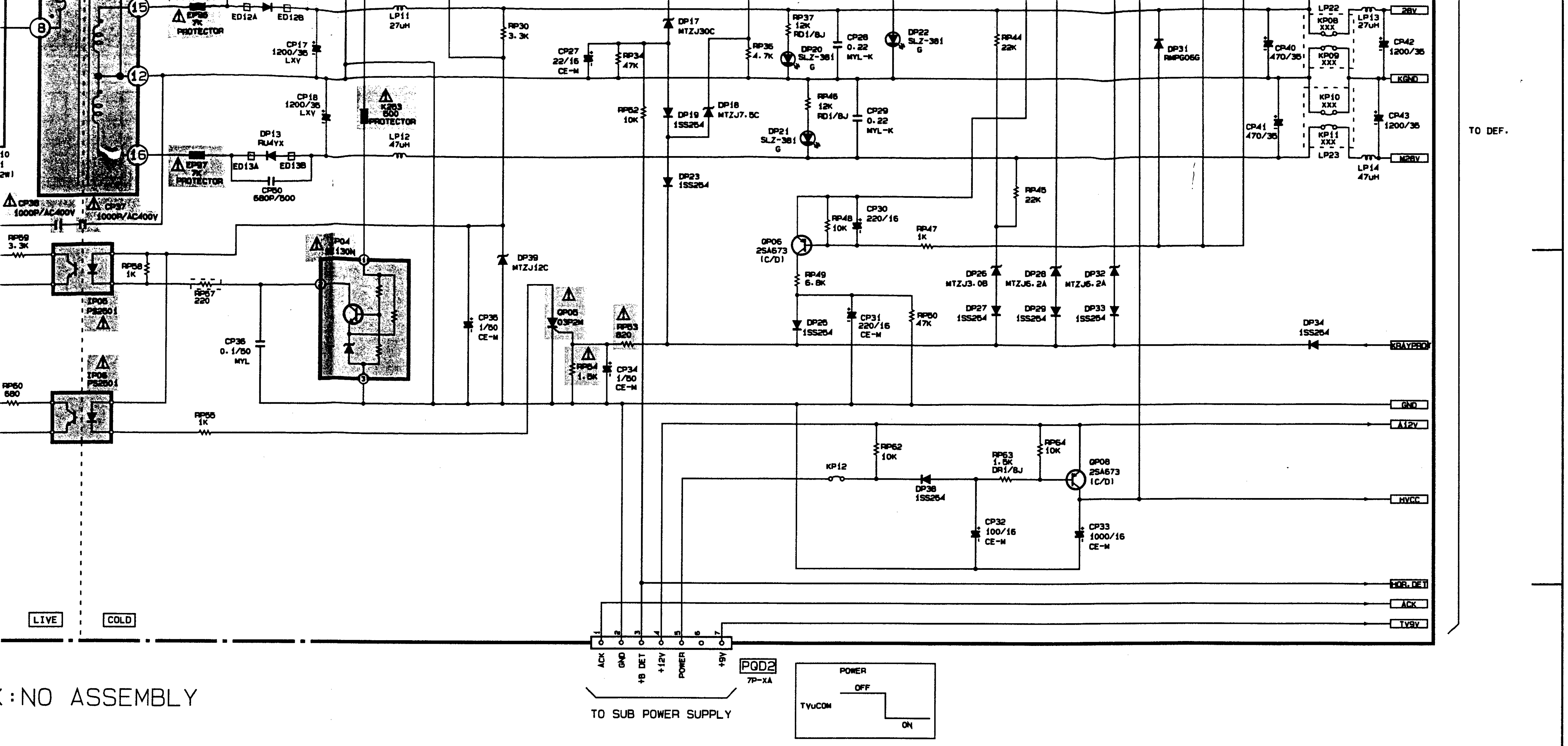
- All DC voltage to be measured with a tester (100kΩ/V). Voltage
- Since this is a basic circuit diagram, the value of the parts is sub

1

2

3

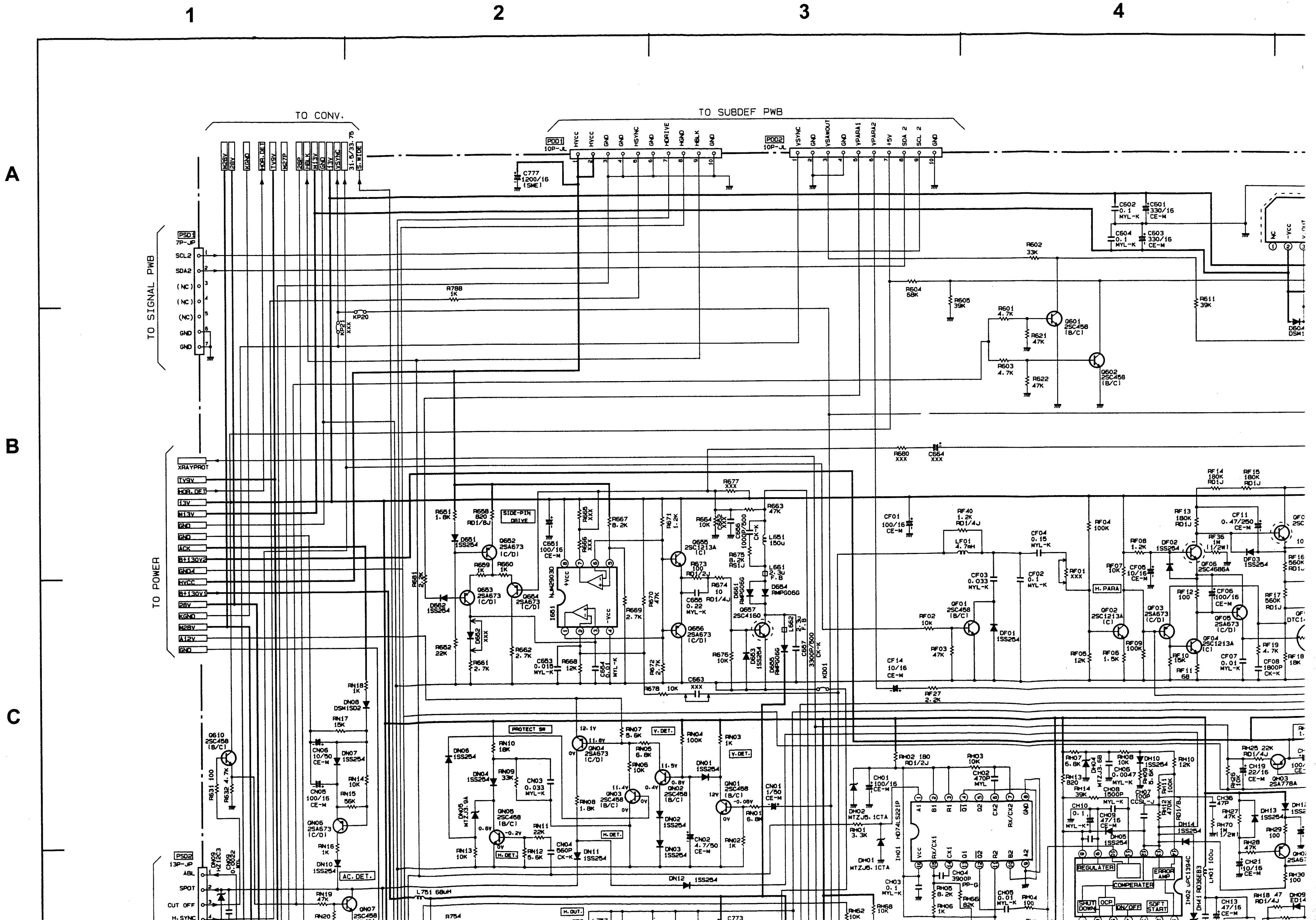

3
4
5
6
A
B
C
TP91
EP92 4K PROTECTOR
EP93 5K PROTECTOR
EP94 7K PROTECTOR
EP95 7K PROTECTOR
EP96 7K PROTECTOR
EP97 7K PROTECTOR
EP98 2K PROTECTOR
K203 800 PROTECTOR
DP07 RU4AM
CP44 470P/2K
CP11 220/250 KMH
CP12 0.001/630 PP-J
KP02
LP03 100uH
KP03 XXX
LP04 100uH
DP08 RU3YX
CP45 680P/500
CP13 1500/10 LXY
IP02 PQ05RD083
CP19 0.1 MYL-K
RP18 XXX
CP20 470/10 CE-M
CP21 0.1 MYL-K
KP04 XXX
DP09 RU3YX
CP46 680P/500
CP14 2200/16 LXY
LP05 47uH
IP03 SI-8120S
LP07 (2A) 200uH
CP22 470/16 CE-M
DP14 RK34
RP20 3.3K
RP19 150
CP23 1500/16 LXY
QP02 2SA673 (C/D)
RP22 1.8K RD1/8J
QP03 2SA673 (C/D)
RP24 5.6K
RP21 12K
RP23 4.7K
DP15 SLZ-381 G
LP08 68uH
CP24 470/16 CE-M
RP40 3.3K
RP42 1.5K
DP30 RMPG06G
RP43 2.2K
CP47 680P/500
CP15 2200/16 LXY
DP10 RU3YX
LP06 47uH
RP27 4.7K
RP28 10K
QP01 2SC3852
KP05 XXX
RP25 12K
RP26 4.7K
DP16 SLZ-381 G
CP25 470/16 CE-M
LP09 68uH
RP41 3.3K
RP56 Jumper
CP48 470P/2K
ED11A
ED11B
DP11 RU4AM
RP31 0.47 (1W)
QP04 2SA778A K
RP32 10K
RP33 22K
CP26 47/16 CE-M
RP29 180 RD1/8J
RP35 82K RD1/2J
LP10 68uH
RP38 56K RD1/2J
RP39 56K RD1/2J
DP41 RMPG06D
CP16 470/160
CP49 680P/500
DP12 RU4YX
ED12A
ED12B
LP11 27uH
RP30 3.3K
DP17 MTZJ30C
RP37 12K RD1/8J
CP28 0.22 MYL-K
DP22 SLZ-381 G
RP44 22K
DP31 RMPG06G
CP17 1200/35 LXY
CP27 22/16 CE-M
RP34 47K
RP36 4.7K
DP20 SLZ-381 G
CP18 1200/35 LXY
RP52 10K
DP19 1SS254
DP18 MTZJ7.5C
RP46 12K RD1/8J
CP29 0.22 MYL-K
DP21 SLZ-381 G
DP13 RU4YX
ED13A
ED13B
LP12 47uH
CP50 680P/500
DP23 1SS254
RP45 22K
CP38 1000P/AC400V
CP37 1000P/AC400V
RP59 3.3K
RP58 1K
IP08 PS2001
RP57 220
CP35
IP04 SE130N
DP39 MTZJ12C
CP36 1/50 CE-M
QP05 03P2M
RP53 820
QP06 2SA673 (C/D)
RP48 10K
CP30 220/16
RP47 1K
RP49 6.8K
DP25 1SS254
CP31 220/16 CE-M
RP50 47K
DP26 MTZJ3.0B
DP27 1SS254
DP28 MTZJ6.2A
DP29 1SS254
DP32 MTZJ6.2A
DP33 1SS254
DP34 1SS254
DP36 RPG02-15E
DP37 RPG02-15E
LP17 100uH
CP39 100/35 CE-M
PDC1 5P-XA
220V
NC
28V
GND
HEATER
13V
GND
M13V
GND
B+130V1
B+130V2
LP18 180uH
KP07
KP06
GND4
LP22
KP08 XXX
LP13 27uH
28V
CP40 470/35
CP42 1200/35
KP09 XXX
KGND
KP10 XXX
CP41 470/35
CP43 1200/35
KP11 XXX
LP23
LP14 47uH
M26V
TO DEF.
1
2
3
4
5
6
8
9
10
11
12
13
14
15
16
17
18

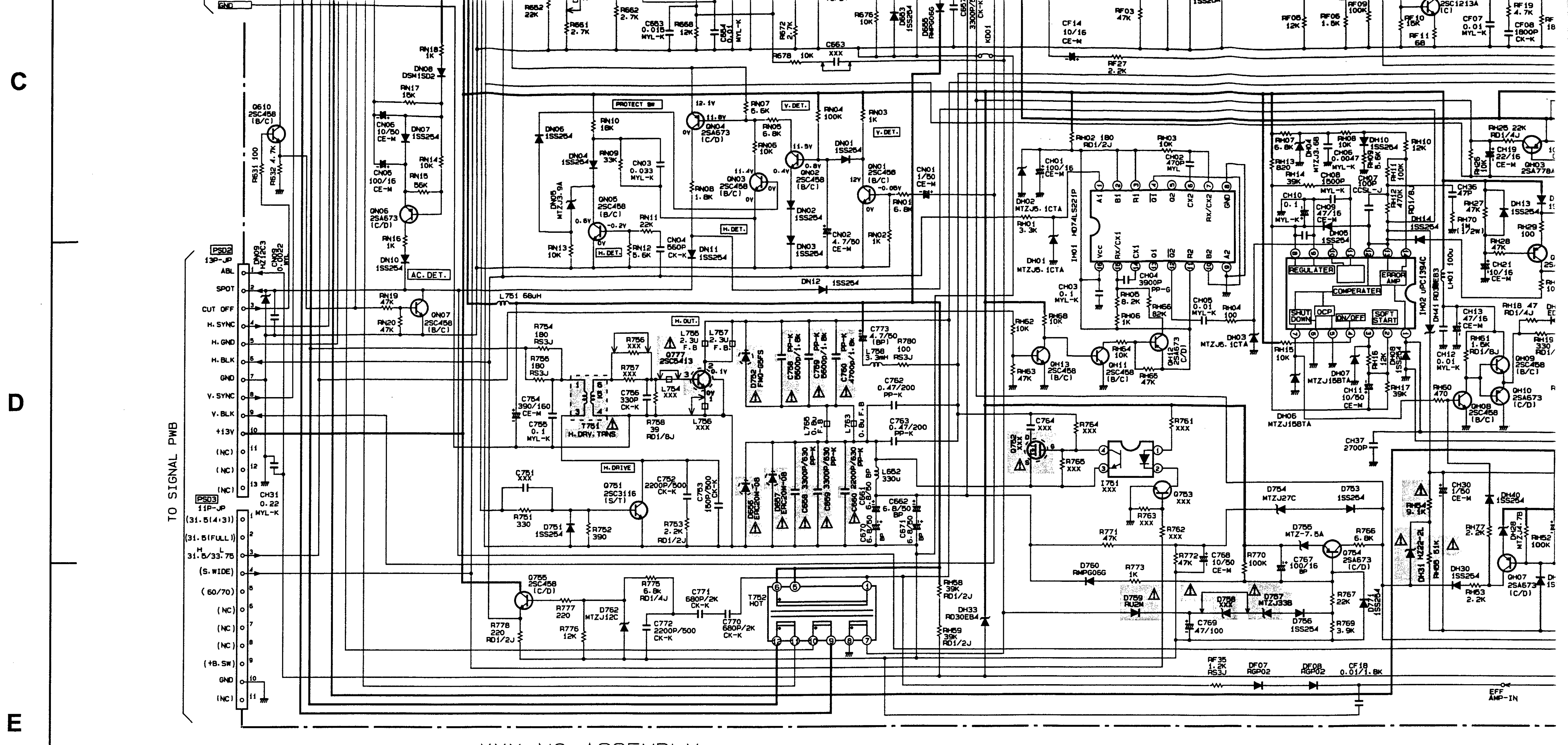

EP86 7K PROTECTOR
ED12A
ED12B
LP11 27uH
CP17 1200/35 LXV
RP30 3.3K
CP27 22/16 CE-M
RP34 47K
DP17 MTZJ30C
RP37 12K RD1/8J
RP35 4.7K
DP20 SLZ-381 G
CP28 0.22 MYL-K
DP22 SLZ-381 G
RP44 22K
DP31 RMPG06G
CP40 470/35
LP22
KP08 XXX
LP13 27uH
CP42 1200/35
KP09 XXX
KP10 XXX
CP43 1200/35
CP41 470/35
KP11 XXX
LP23
LP14 47uH
28V
KGND
M28V
TO DEF.
CP18 1200/35 LXV
KJ83 500 PROTECTOR
LP12 47uH
RP52 10K
DP19 1SS254
DP18 MTZJ7.5C
RP46 12K RD1/8J
CP29 0.22 MYL-K
DP21 SLZ-381 G
DP13 RU4YX
EP87 7K PROTECTOR
ED13A
ED13B
CP50 680P/500
DP23 1SS254
RP45 22K
CP38 1000P/AC400V
CP37 1000P/AC400V
RP59 3.3K
RP58 1K
RP57 220
IP05 PS2501
RP48 10K
CP30 220/16
RP47 1K
QP06 2SA673 (C/D)
IP04 130N
DP39 MTZJ12C
RP49 6.8K
DP26 MTZJ3.0B
DP28 MTZJ6.2A
DP32 MTZJ6.2A
CP35 1/50 CE-M
QP05 03P2M
RP53 820
CP36 0.1/50 MYL
DP25 1SS254
CP31 220/16 CE-M
RP50 47K
DP27 1SS254
DP29 1SS254
DP33 1SS254
DP34 1SS254
X-RAY PRO
RP54 1.8K
CP34 1/50 CE-M
IP06 PS2501
RP60 680
RP55 1K
GND
A12V
RP62 10K
RP64 10K
KP12
RP63 1.8K DR1/8J
QP08 2SA673 (C/D)
DP36 1SS254
HVCC
CP32 100/16 CE-M
CP33 1000/16 CE-M
HOR.DET
ACK
TV9V
LIVE
COLD
1
2
3
4
5
6
7
ACK
GND
+B DET
+12V
POWER
+9V
PQD2
7P-XA
TO SUB POWER SUPPLY
POWER
OFF
TVuCOM
ON
8
12
15
16
C
D
E
3
4
5
6

:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 POWER SUPPLY P.W.B. 2/2


1
2
3
4
A
B
C
TO CONV.
TO SUBDEF PWB
TO SIGNAL PWB
TO POWER
PSD1 7P-JP
SCL2
SDA2
(NC)
GND
PDD1 10P-JL
HVcc
GND
HSYNC
HDRIVE
HGND
HBLK
PDD2 10P-JL
VSYNC
VSAWOUT
VPARA1
VPARA2
+5V
SDA 2
SCL 2
M28V
28V
KGND
HOR.DET
TV9V
M27P
28P
HBLK
M13V
13V
VSYNC
31.5/33.75
S.WIDE
C777 1200/16 (SME)
R788 1K
KP20
KP21 XXX
XRAYPROT
TV9V
HOR.DET
13V
M13V
GND
ACK
B+130V2
GND4
HVCC
B+130V1
28V
KGND
M28V
A12V
C602 0.1 MYL-K
C601 330/16 CE-M
C604 0.1 MYL-K
C603 330/16 CE-M
R602 33K
R604 68K
R605 39K
R601 4.7K
R621 47K
Q601 2SC458 (B/C)
R603 4.7K
R622 47K
Q602 2SC458 (B/C)
R611 39K
D604 DSM1
R680 XXX
C664 XXX
SIDE-PIN DRIVE
IC651 NJM2903D
R651 1.8K
R658 820 RD1/8J
D651 1SS254
Q652 2SA673 (C/D)
Q653 2SA673 (C/D)
Q654 2SA673 (C/D)
R659 1K
R660 1K
D662 1SS254
R681 2.2K
R662 22K
R661 2.7K
R662 2.7K
C653 0.015 MYL-K
R668 12K
C654 0.01 MYL-K
R665 XXX
R666 XXX
R667 8.2K
C651 100/16 CE-M
R669 2.7K
R670 47K
R671 1.2K
R672 2.7K
R677 XXX
R663 47K
R664 10K
C656 1000P/500
L651 150u
Q655 2SC1213A (C)
R673 100 RD1/2J
R675 8.2K RS1J
R674 10 RD1/4J
C655 0.22 MYL-K
D661 RMPG06G
D654 RMPG06G
L661 2.3u F.B
Q656 2SA673 (C/D)
Q657 2SC4160
L662 2.3u F.B
C657 3300P/500 CK-K
R676 10K
D653 1SS254
D655 RMPG06G
KD01
R678 10K
C663 XXX
CF01 100/16 CE-M
RF40 1.2K RD1/4J
LF01 4.7mH
CF04 0.15 MYL-K
RF04 100K
CF03 0.033 MYL-K
CF02 0.1 MYL-K
RF01 XXX
H.PARA
RF02 10k
QF01 2SC458 (B/C)
DF01 1SS254
RF03 47K
CF14 10/16 CE-M
RF27 2.2K
RF14 180K RD1J
RF15 180K RD1J
RF13 180K RD1J
CF11 0.47/250 CE-M
RF36 1M (1/2W)
RF08 1.2K
DF02 1SS254
RF07 10K
CF06 10/16 CE-M
QF06 2SC4686A
DF03 1SS254
RF16 560K RD1J
QF02 2SC1213A (C)
QF03 2SA673 (C/D)
RF12 100
CF05 100/16 CE-M
QF05 2SA673 (C/D)
RF17 560K RD1J
RF06 12K
RF05 1.5K
RF09 100K
RF10 15K
RF11 68
QF04 2SC1213A (C)
CF07 0.01 MYL-K
RF19 4.7K
CF08 1800P CK-K
RF18 18K
Q610 2SC458 (B/C)
R631 100
R632 4.7K
RN18 1K
DN08 DSM1SD2
RN17 15K
CN06 10/50 CE-M
DN07 1SS254
RN14 10K
CN05 100/16 CE-M
RN15 56K
QN06 2SA673 (C/D)
RN16 1K
DN10 1SS254
AC.DET.
RN19 47K
RN20
QN07 2SC458
PSD2 13P-JP
ABL
SPOT
CUT OFF
H.SYNC
DN09 HZ12C3
CN09 0.0022 KDL
L751 68uH
R754
PROTECT SW
DN06 1SS254
RN10 18K
DN04 1SS254
RN09 33K
CN03 0.033 MYL-K
DN05 MTZJ3.9A
QN05 2SC458 (B/C)
RN11 22K
RN12 5.6K
CN04 560P CK-K
DN11 1SS254
RN13 10K
H.DET.
QN04 2SA673 (C/D)
RN07 5.6K
Y.DET.
RN05 6.8K
RN06 10K
RN08 1.8K
QN03 2SC458 (B/C)
QN02 2SC458 (B/C)
DN01 1SS254
RN04 100K
RN03 1K
QN01 2SC458 (B/C)
DN02 1SS254
DN03 1SS254
CN02 4.7/50 CE-M
RN02 1K
RN01 6.8K
CN01 1/50 CE-M
DN12 1SS254
H.OUT.
C773
RH02 180 RD1/2J
CH01 100/16 CE-M
DH02 MTZJ5.1CTA
RH01 3.3K
DH01 MTZJ5.1CTA
IH01 HD74LS221P
RH03 10K
CH02 470P MYL
CH03 0.1 MYL-K
CH04 3900P PP-G
RH05 8.2K
RH06 1K
RH66 82K
CH05 0.01 MYL-K
RH04 100
RH62 10K
RH58 10K
RH07 6.8K
DH04
RH13 820
RH14 39K
CH10 0.1 MYL-K
RH08 10K
CH06 0.0047 MYL-K
DH10 1SS254
RH10 12K
CH08 1500P MYL-K
CH07 100P CCSL-J
CH09 47/16 CE-M
DH05 1SS254
DH14 1SS254
RH12 470K
RH11 100K RD1/8J
REGULATER
ERROR AMP
COMPERATER
SHUT DOWN
OCP
ON/OFF
SOFT START
IH02 uPC1394C
DH41 RD36EB3
LH01 100u
RH25 22K RD1/4J
CH19 22/16 CE-M
QH03 2SA778A
RH26 10K
CH36 47P
RH27 47K
DH13 1SS254
RH70 1K (1/2W)
RH28 47K
RH29 100
CH21 10/16 CE-M
RH30 100
CH13 47/16 CE-M
RH18 47 RD1/4J
DH09

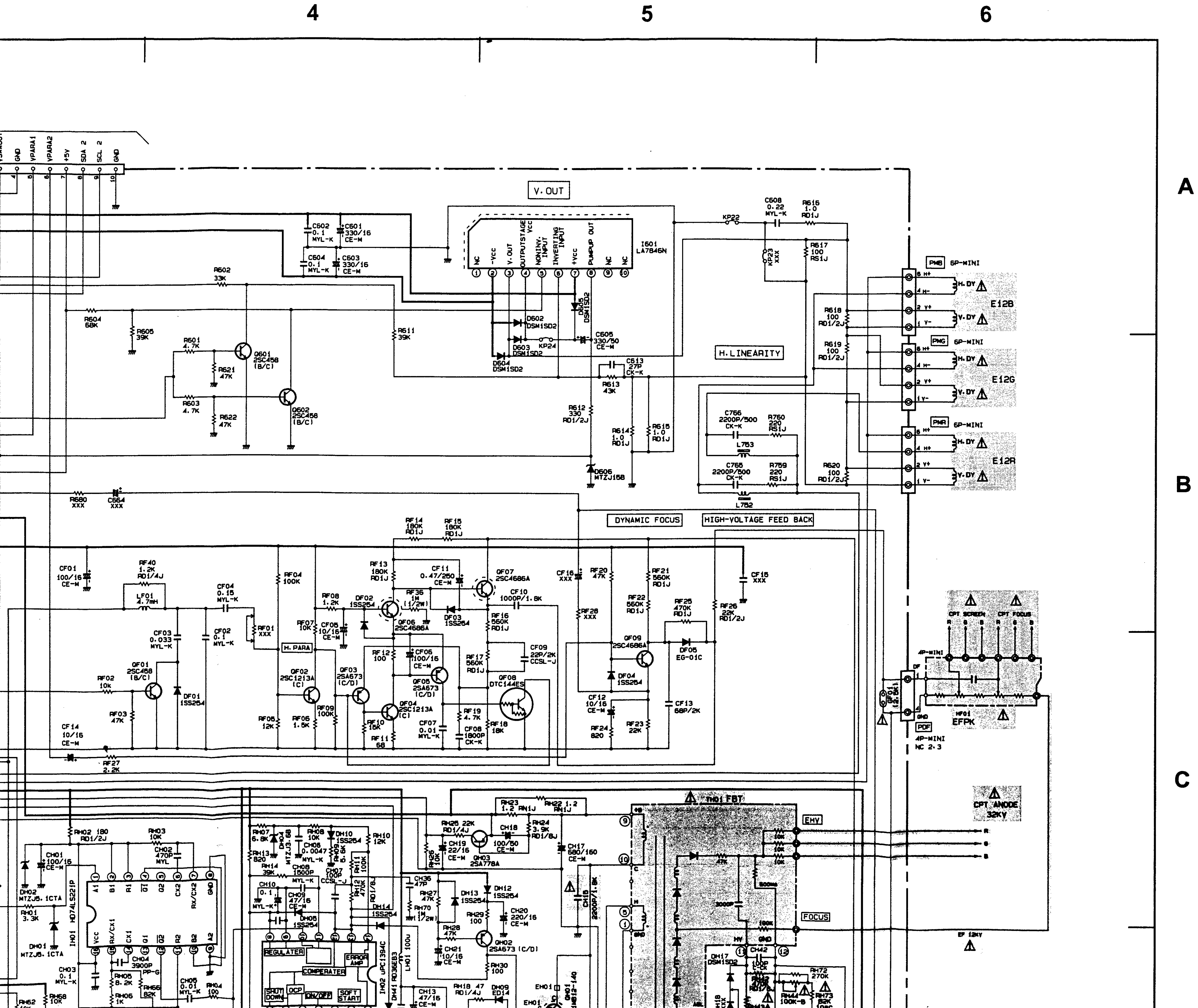

C
D
E
TO SIGNAL PWB
PSD2
13P-JP
ABL
SPOT
CUT OFF
H.SYNC
H.GND
H.BLK
GND
V.SYNC
V.BLK
+13V
(NC)
PSD3
11P-JP
(31.5(4:3))
(31.5(FULL))
31.5/33.75
(S.WIDE)
(60/70)
(+B.SW)
PROTECT SW
V.DET.
H.DET.
AC.DET.
H.OUT.
H.DRIVE
H.DRV.TRANS
T751
T752 HOT
IM01 HD74LS221P
IH02 uPC1394C
REGULATER
ERROR AMP
COMPERATER
SHUT DOWN
OCP
ON/OFF
SOFT START
EFF AMP-IN

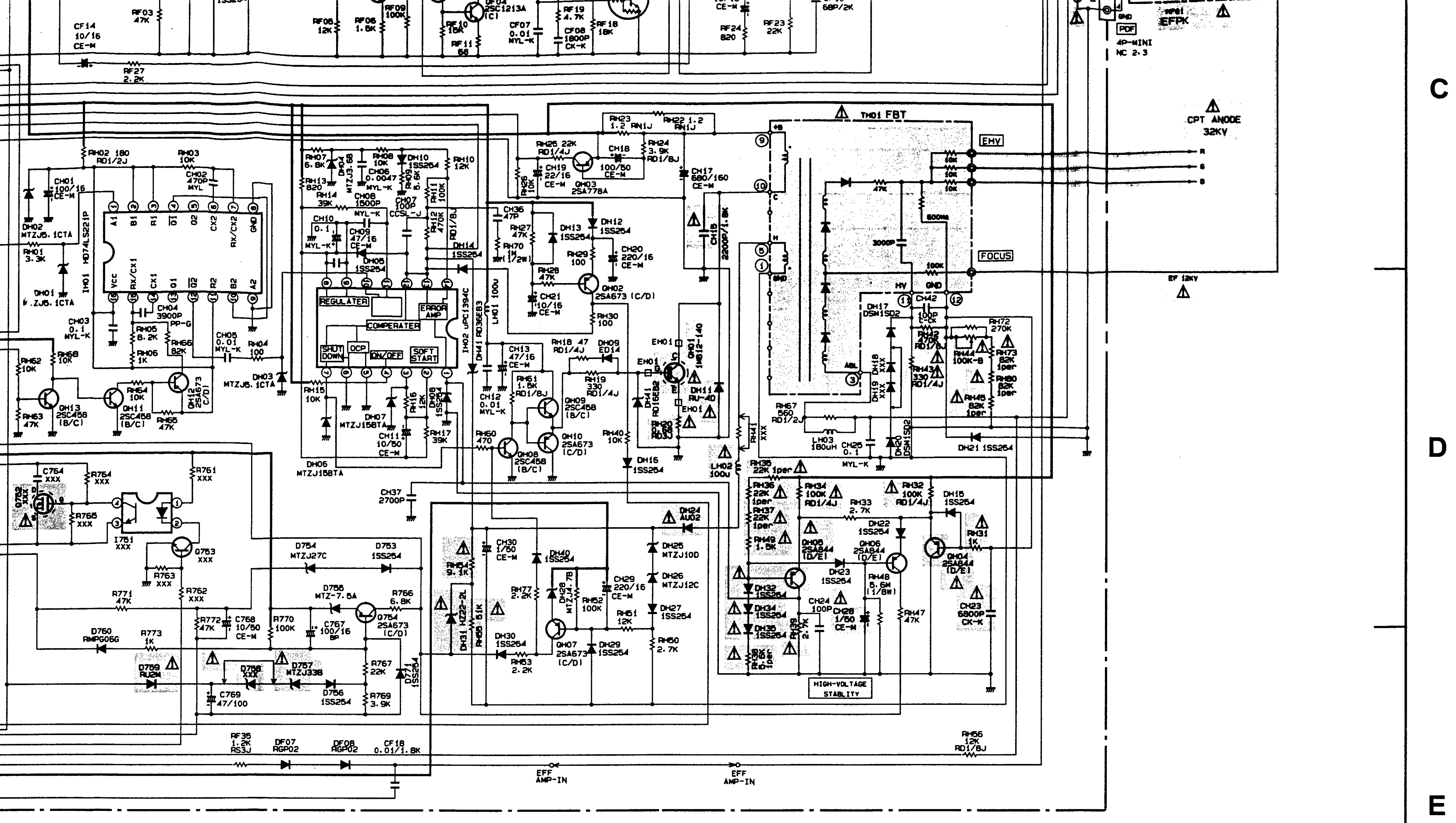
XXX : NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sig
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemen

1 2 3 4

Manual. Don't degrade the safety of the receiver through improper servicing.

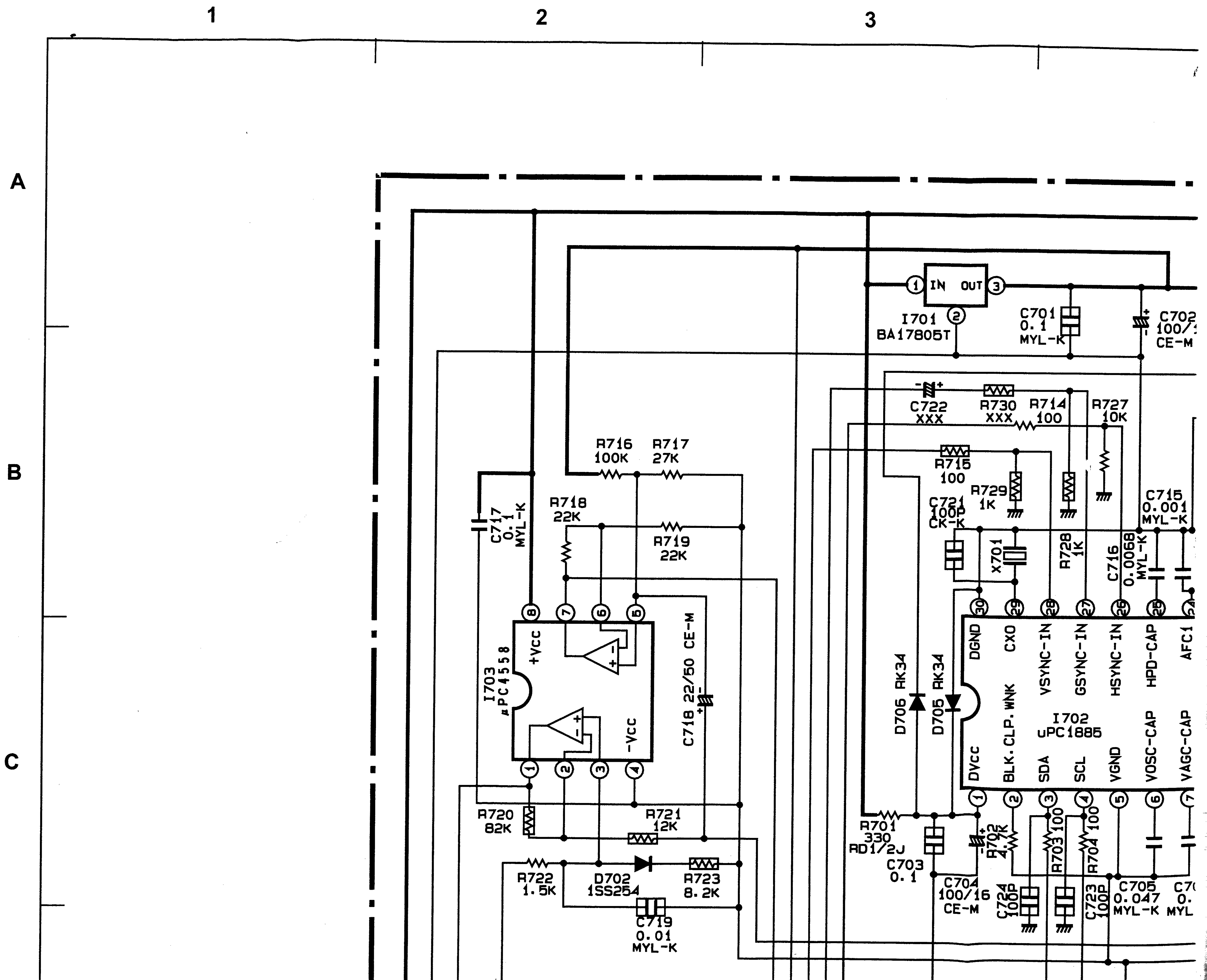

4
5
6
A
B
C
GND
VPARA1
VPARA2
+5V
SDA 2
SCL 2
GND
V.OUT
I601
LA7846N
NC
-Vcc
V.OUT
OUTPUTSTAGE Vcc
NONINV. INPUT
INVERTING INPUT
+Vcc
PUMPUP OUT
NC
NC
C602 0.1 MYL-K
C601 330/16 CE-M
C604 0.1 MYL-K
C603 330/16 CE-M
R602 33K
R604 68K
R605 39K
R601 4.7K
Q601 2SC458 (B/C)
R621 47K
R603 4.7K
Q602 2SC458 (B/C)
R622 47K
R611 39K
D602 DSM1SD2
D605 DSM1SD2
D603 DSM1SD2
KP24
D604 DSM1SD2
C605 330/50 CE-M
C613 27P CK-K
R613 43K
R612 330 RD1/2J
R614 1.0 RD1J
R615 1.0 RD1J
D606 MTZJ158
C608 0.22 MYL-K
R616 1.0 RD1J
KP22
KP23 XXX
R617 100 RS1J
H.LINEARITY
C766 2200P/500 CK-K
R760 220 RS1J
L763
C765 2200P/500 CK-K
R759 220 RS1J
L762
R618 100 RD1/2J
R619 100 RD1/2J
R620 100 RD1/2J
PMB 6P-MINI
PMG 6P-MINI
PMR 6P-MINI
H+
H-
V+
V-
H.DY
V.DY
E12B
E12G
E12R
R680 XXX
C664 XXX
DYNAMIC FOCUS
HIGH-VOLTAGE FEED BACK
CF01 100/16 CE-M
RF40 1.2K RD1/4J
LF01 4.7mH
CF04 0.15 MYL-K
CF03 0.033 MYL-K
CF02 0.1 MYL-K
RF01 XXX
RF04 100K
H.PARA
QF01 2SC458 (B/C)
RF02 10k
DF01 1SS254
RF03 47K
CF14 10/16 CE-M
RF27 2.2K
RF08 1.2K
DF02 1SS254
RF07 10K
CF06 10/16 CE-M
QF02 2SC1213A (C)
RF05 12K
RF06 1.5K
RF09 100K
QF03 2SA673 (C/D)
RF13 180K RD1J
RF14 180K RD1J
RF15 180K RD1J
CF11 0.47/250 CE-M
RF36 1M (1/2W)
QF06 2SC4686A
DF03 1SS254
QF07 2SC4686A
CF10 1000P/1.6K
RF16 560K RD1J
RF12 100
CF05 100/16 CE-M
QF05 2SA673 (C/D)
QF04 2SC1213A (C)
RF10 15K
RF11 68
CF07 0.01 MYL-K
RF17 560K RD1J
QF08 DTC144ES
RF19 4.7K
CF08 1800P CK-K
RF18 18K
CF09 22P/2K CCSL-J
CF16 XXX
RF20 47K
RF28 XXX
RF21 560K RD1J
RF22 560K RD1J
RF25 470K RD1J
RF26 22K RD1/2J
CF15 XXX
QF09 2SC4686A
DF04 1SS254
DF05 EG-01C
CF12 10/16 CE-M
RF24 820
RF23 22K
CF13 68P/2K
CPT SCREEN
CPT FOCUS
R G B
4P-MINI
DF
GF01 (12.6K)
GND
PDF
4P-MINI NC 2.3
HF01 EFPK
CPT ANODE 32KV
EF 12KV
RH02 180 RD1/2J
RH03 10K
CH02 470P MYL
CH01 100/16 CE-M
DH02 MTZJ5.1CTA
RH01 3.3K
DH01 MTZJ5.1CTA
IH01 HD74LS221P
A1 B1 R1 Q1 Q2 CX2 RX/CX2 GND
Vcc RX/CX1 CX1 Q1 Q2 R2 B2 A2
CH03 0.1 MYL-K
CH04 3900P PP-G
RH05 8.2K
RH06 1K
RH66 82K
CH05 0.01 MYL-K
RH04 100
RH62
RH58 10K
RH07 6.8K
DH03 MTZJ3.6B
RH08 10K
CH06 0.0047 MYL-K
DH10 1SS254
RH10 12K
RH13 820
RH14 39K
CH08 1500P MYL-K
CH07 100P CCSL-J
RH09 5.6K
RH11 100K
RH12 470K
CH10 0.1 MYL-K
CH09 47/16 CE-M
DH05 1SS254
DH14 1SS254
REGULATER
COMPERATER
ERROR AMP
SHUT DOWN
OCP
ON/OFF
SOFT START
IH02 uPC1394C
DH41 RD36EB3
LH01 100u
RH23 1.2 RN1J
RH22 1.2 RN1J
RH26 22K RD1/4J
CH18 100/50 CE-M
RH24 3.9K RD1/8J
CH19 22/16 CE-M
RH25 10K
QH03 2SA778A
CH17 680/160 CE-M
CH36 47P
RH27 47K
RH70 1M (1/2W)
DH13 1SS254
DH12 1SS254
RH29 100
CH20 220/16 CE-M
RH28 47K
CH21 10/16 CE-M
QH02 2SA673 (C/D)
RH30 100
CH13 47/16 CE-M
RH18 47 RD1/4J
DH09 ED14
EH01
CH15 2200P/1.8K
TH01 FBT
EHV
FOCUS
HV
GND
DH17 DSM1SD2
CH42 100P
RH72 270K
RH44 100K-B
RH73 82K
R
G
B
10K
47K
500mA
3000P
100K

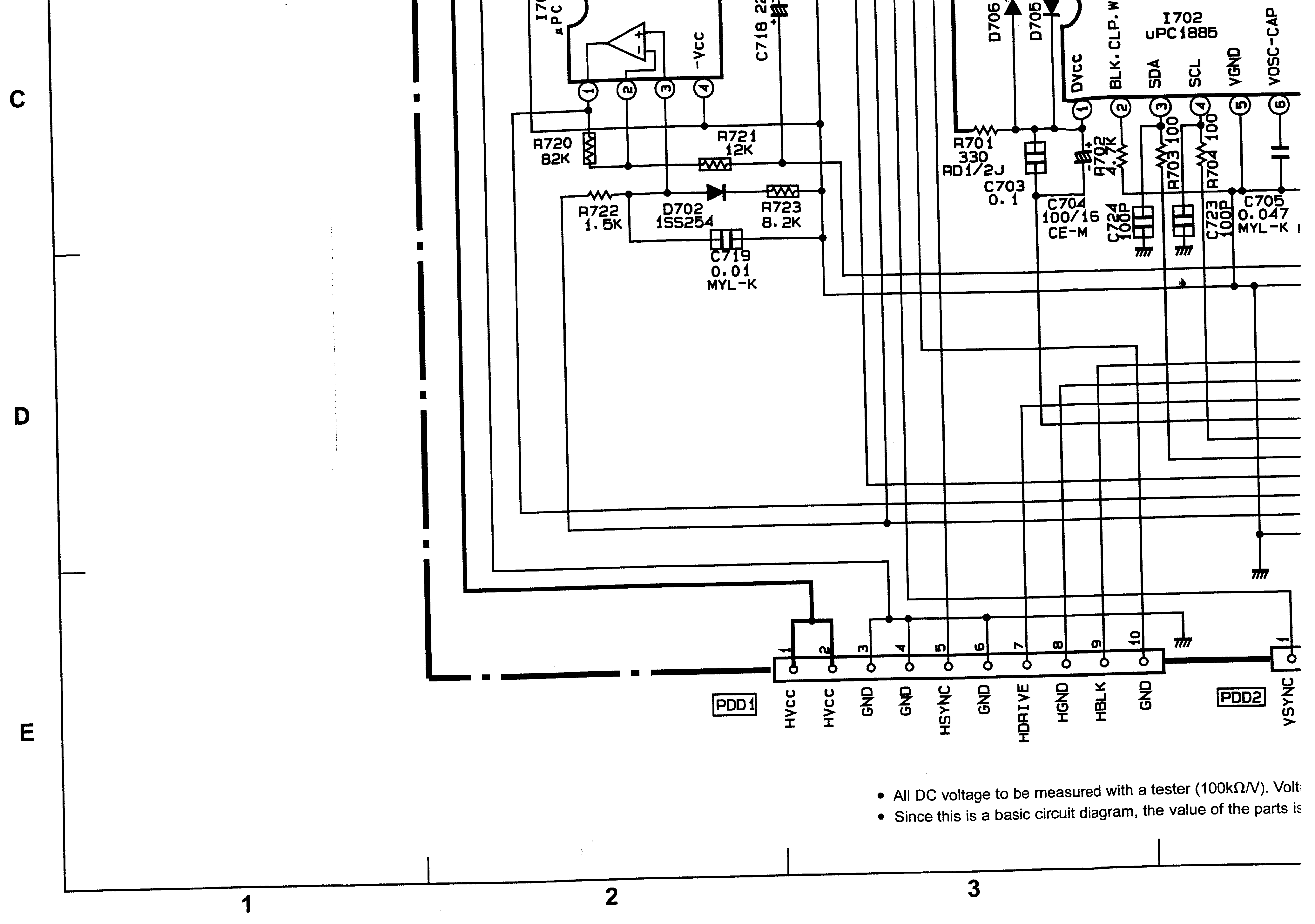

C
D
E
TH01 FBT
EHV
FOCUS
CPT ANODE
32KV
EF 12KV
R
G
B
HV
GND
ABL
IH01 MD74LS221P
IH02 uPC1394C
REGULATER
ERROR AMP
COMPERATER
SHUT DOWN
OCP
ON/OFF
SOFT START
QH01 MN612-140
QH02 2SA673 (C/D)
QH03 2SA778A
QH04 2SA844 (D/E)
QH05 2SA844 (D/E)
QH06 2SA844 (D/E)
QH07 2SA673 (C/D)
QH08 2SC458 (B/C)
QH09 2SC458 (B/C)
QH10 2SA673 (C/D)
QH11 2SC458 (B/C)
QH12 2SA673 (C/D)
QH13 2SC458 (B/C)
LH01 100u
LH02 100u
LH03 180uH
CH17 680/160
CH18 2200P/1.6K
CH23 6800P CK-K
CH37 2700P
I751 XXX
Q753 XXX
Q754 2SA673 (C/D)
D754 MTZJ27C
D753 1SS254
D755 MTZ-7.5A
D760 RMPG06G
HIGH-VOLTAGE STABLITY
RF35 1.2K RS3J
DF07 RGP02
DF08 RGP02
CF18 0.01/1.8K
EFF AMP-IN
RH56 12K RD1/8J
4P-MINI NC 2-3
PDF
EFPK
4
5
6

o be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
asic circuit diagram, the value of the parts is subject to be altered for improvement.

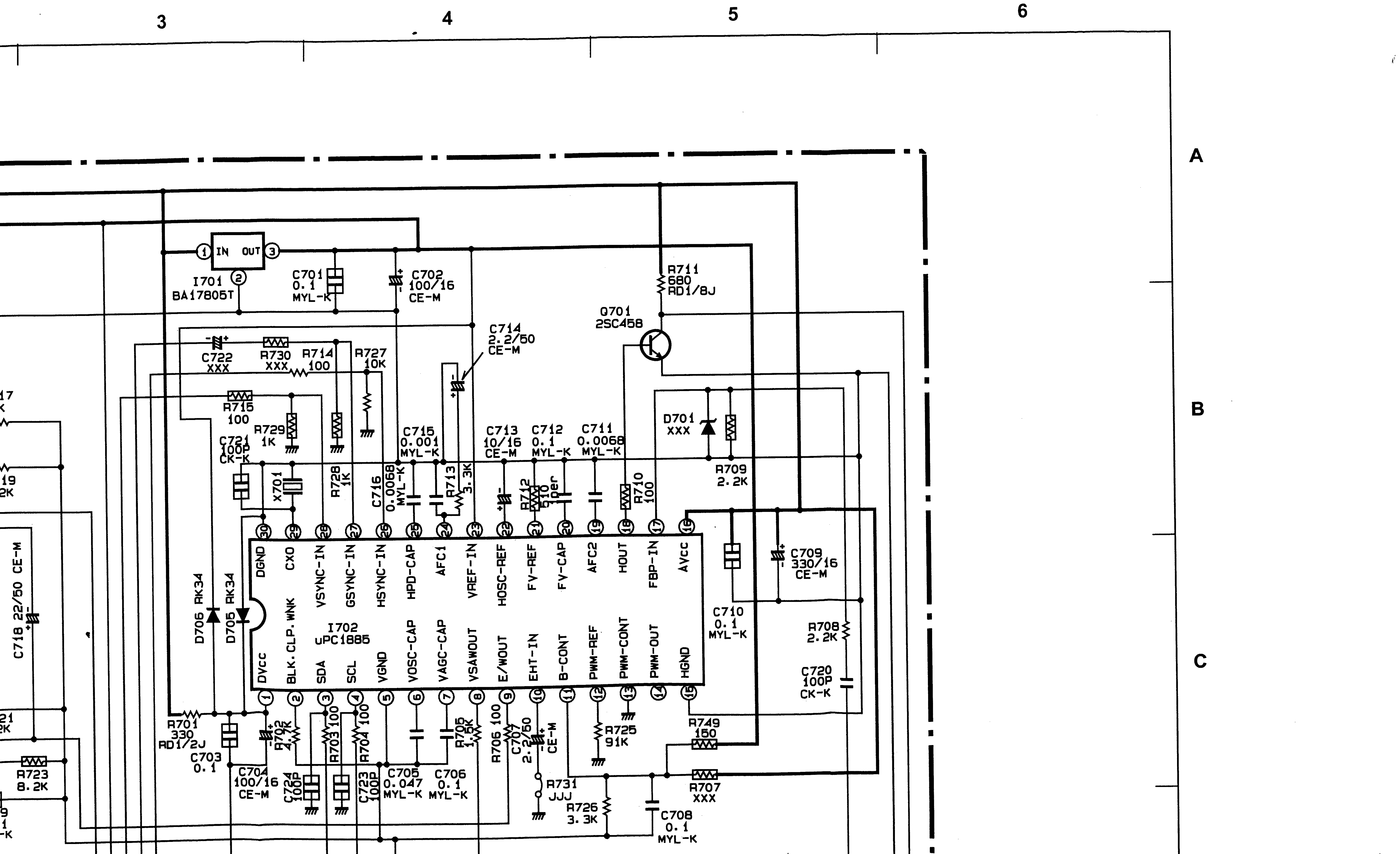
DP86 DEFLECTION P.W.B.

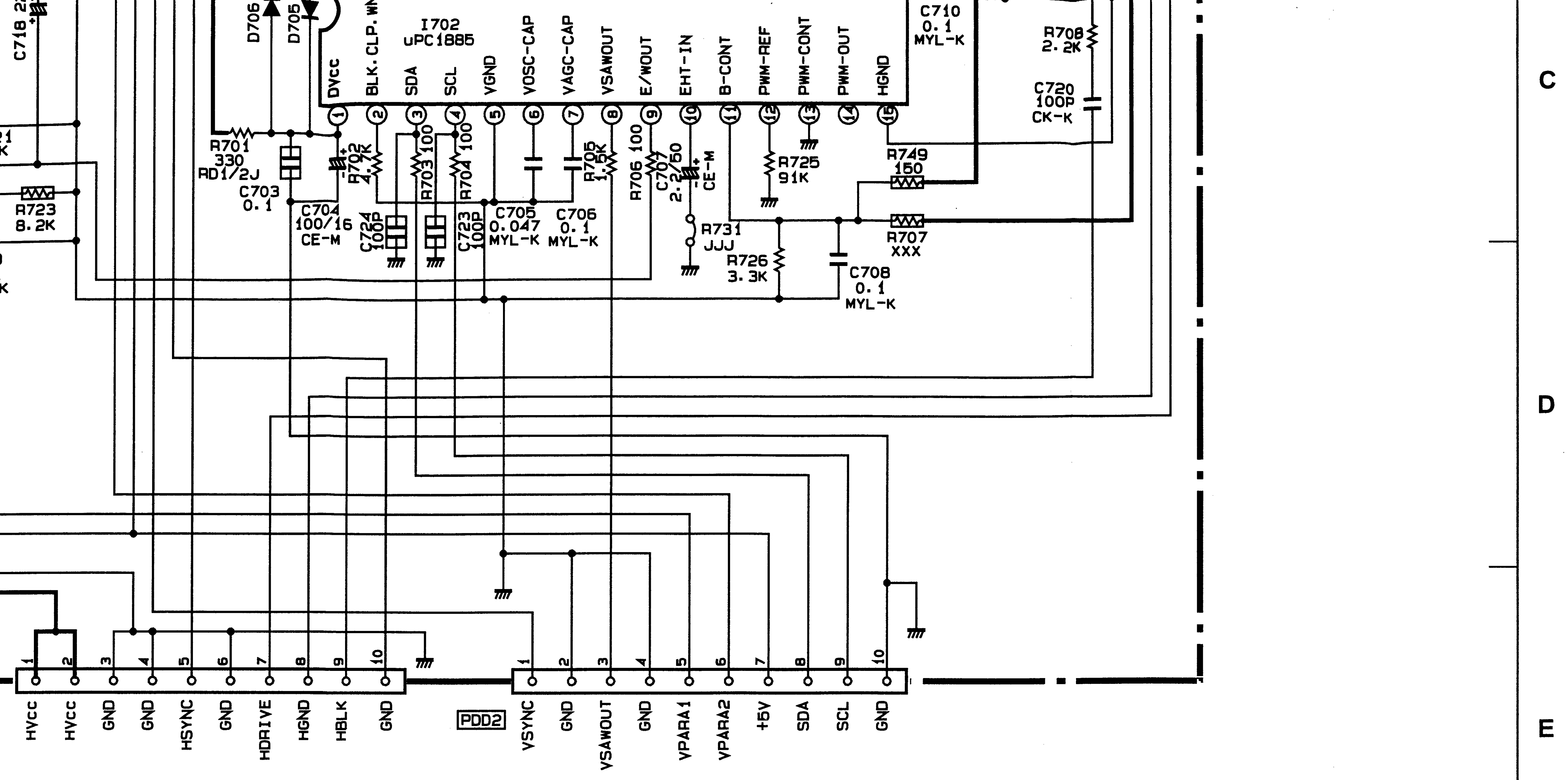
Manual. Don't degrade the safety of the receiver through improper servicing.


1
2
3
A
B
C
I701
BA17805T
IN
OUT
C701
0.1
MYL-K
C702
100/
CE-M
C722
XXX
R730
XXX
R714
100
R727
10K
R715
100
R729
1K
C721
100P
CK-K
X701
R728
1K
C716
0.0068
MYL-K
C715
0.001
MYL-K
R716
100K
R717
27K
R718
22K
R719
22K
C717
0.1
MYL-K
I703
μPC4558
+Vcc
-Vcc
C718 22/50 CE-M
R720
82K
R721
12K
R722
1.5K
D702
1SS254
R723
8.2K
C719
0.01
MYL-K
D706 RK34
D705 RK34
I702
uPC1885
DGND
CXO
VSYNC-IN
GSYNC-IN
HSYNC-IN
HPD-CAP
AFC1
DVcc
BLK.CLP.WNK
SDA
SCL
VGND
VOSC-CAP
VAGC-CAP
R701
330
RD1/2J
C703
0.1
R702
4.7K
C704
100/16
CE-M
C724
100P
R703 100
C723
100P
R704 100
C705
0.047
MYL-K
MYL


C
D
E
1
2
3
I70
PC
-Vcc
C718 22
R720
82K
R721
12K
R722
1.5K
D702
1SS254
R723
8.2K
C719
0.01
MYL-K
D706
D705
I702
uPC1885
DVcc
BLK.CLP.W
SDA
SCL
VGND
VOSC-CAP
R701
330
RD1/2J
C703
0.1
C704
100/16
CE-M
R702
4.7K
R703 100
R704 100
C724
100P
C723
100P
C705
0.047
MYL-K
PDD1
HVcc
HVcc
GND
GND
HSYNC
GND
HDRIVE
HGND
HBLK
GND
PDD2
VSYNC

- All DC voltage to be measured with a tester (100kΩ/V). Volt
- Since this is a basic circuit diagram, the value of the parts is

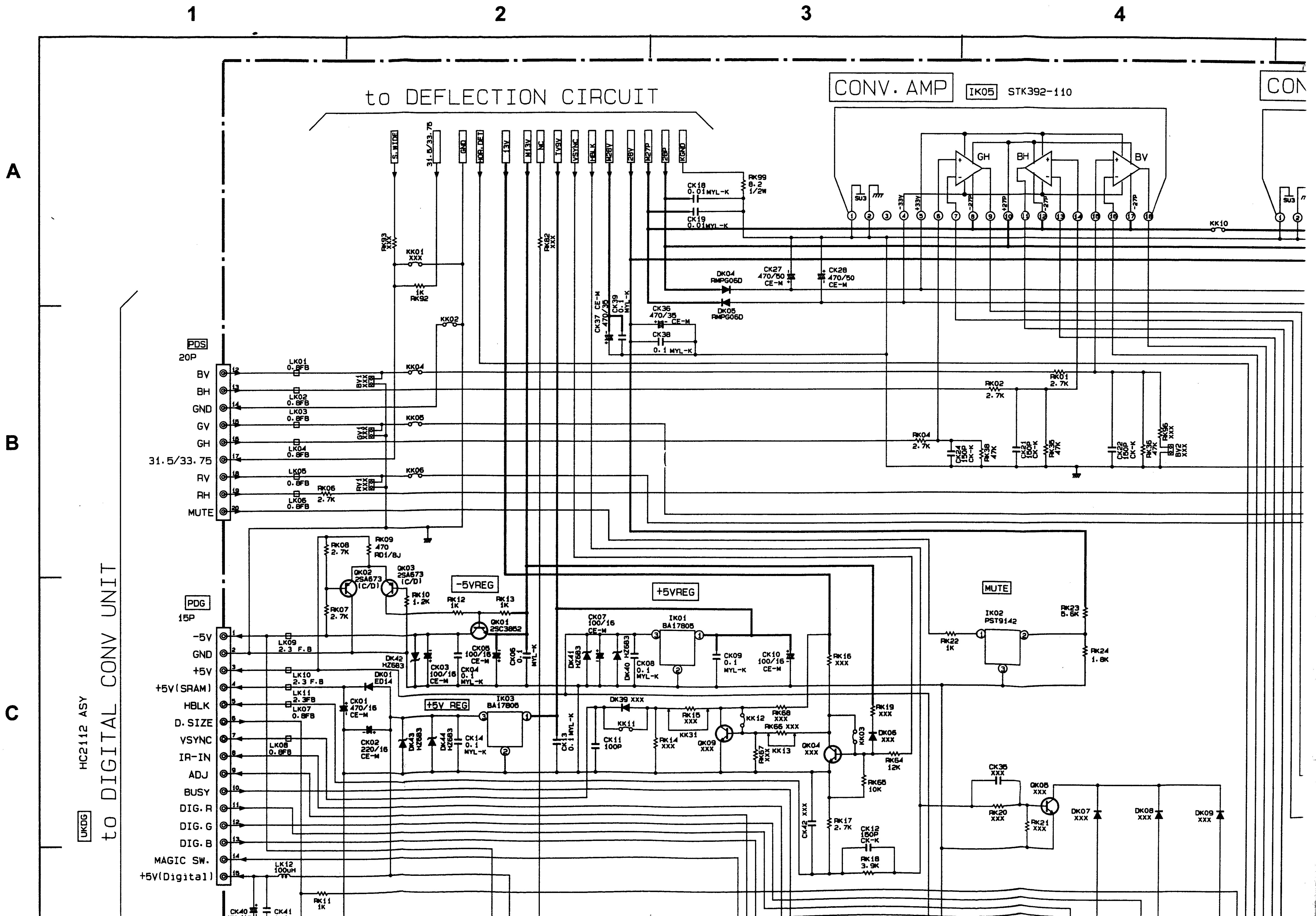

3
4
5
6
A
B
C
I701
BA17805T
IN
OUT
C701
0.1
MYL-K
C702
100/16
CE-M
R711
680
RD1/8J
Q701
2SC458
C714
2.2/50
CE-M
C722
XXX
R730
XXX
R714
100
R727
10K
R715
100
R729
1K
C721
100P
CK-K
X701
R728
1K
C716
0.0068
MYL-K
C715
0.001
MYL-K
R713
3.3K
C713
10/16
CE-M
C712
0.1
MYL-K
R712
510
1per
C711
0.0068
MYL-K
R710
100
D701
XXX
R709
2.2K
C709
330/16
CE-M
C710
0.1
MYL-K
R708
2.2K
C720
100P
CK-K
DGND
CXO
VSYNC-IN
GSYNC-IN
HSYNC-IN
HPD-CAP
AFC1
VREF-IN
HOSC-REF
FV-REF
FV-CAP
AFC2
HOUT
FBP-IN
AVcc
I702
uPC1885
DVcc
BLK.CLP.WNK
SDA
SCL
VGND
VOSC-CAP
VAGC-CAP
VSAWOUT
E/WOUT
EHT-IN
B-CONT
PWM-REF
PWM-CONT
PWM-OUT
HGND
D706 RK34
D705 RK34
C718 22/50 CE-M
R701
330
RD1/2J
C703
0.1
R702
4.7K
C704
100/16
CE-M
C724
100P
R703 100
R704 100
C723
100P
C705
0.047
MYL-K
C706
0.1
MYL-K
R705
1.5K
R706 100
C707
2.2/50
CE-M
R731
JJJ
R726
3.3K
R725
91K
R749
150
R707
XXX
C708
0.1
MYL-K
R723
8.2K
17
K
19
2K
21
2K
9
1
-K

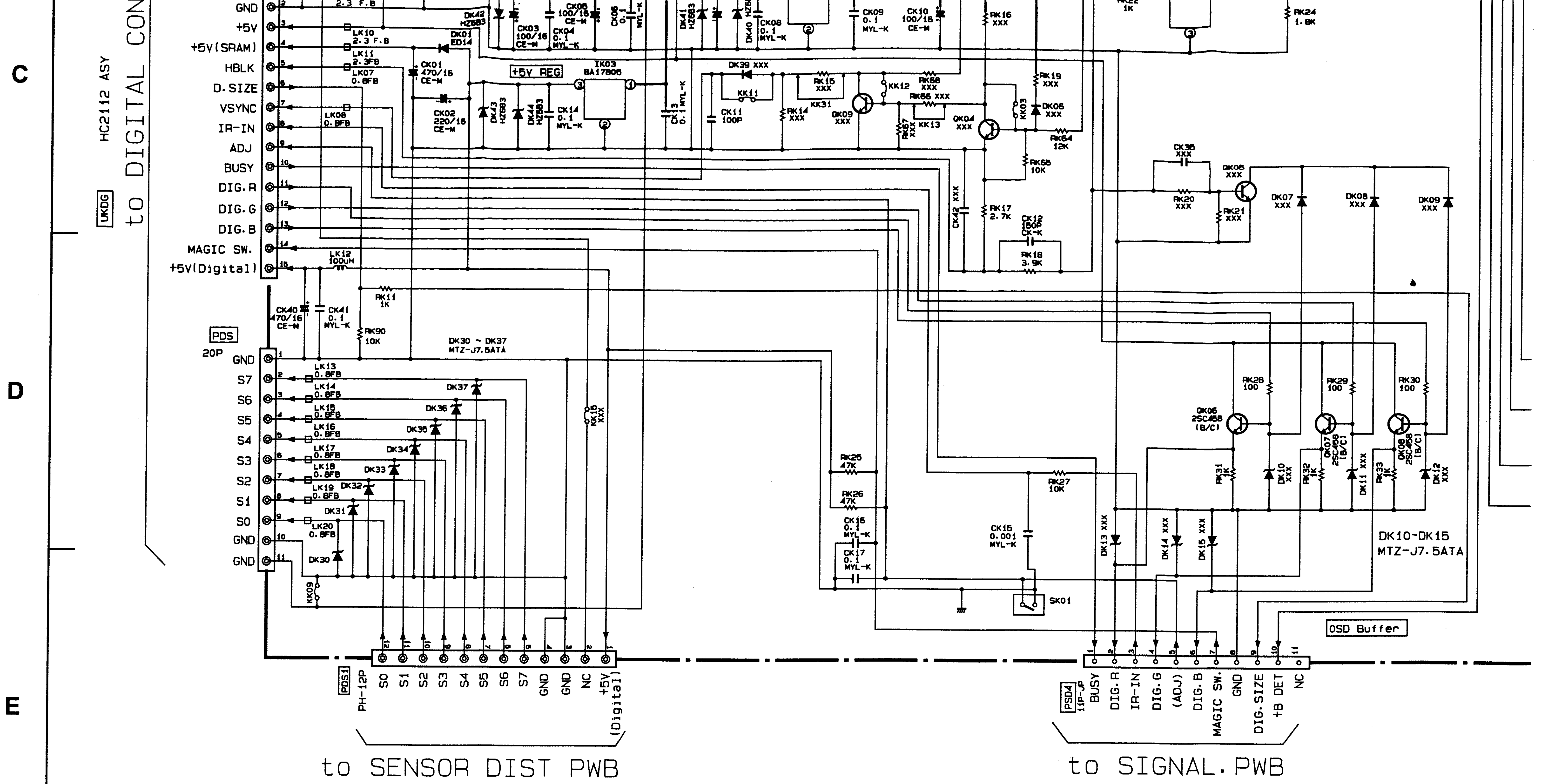

C718
D706
D705
I702
uPC1885
DVcc
BLK.CLP.
SDA
SCL
VGND
VOSC-CAP
VAGC-CAP
VSAWOUT
E/WOUT
EHT-IN
B-CONT
PWM-REF
PWM-CONT
PWM-OUT
HGND
C710 0.1 MYL-K
R708 2.2K
C720 100P CK-K
R701 330 RD1/2J
C703 0.1
C704 100/16 CE-M
R702 4.7K
C724 100P
R703 100
C723 100P
R704 100
C705 0.047 MYL-K
C706 0.1 MYL-K
R705 1.5K
R706 100
C707 2.2/50 CE-M
R731 JJJ
R725 91K
R749 150
R707 XXX
R726 3.3K
C708 0.1 MYL-K
R723 8.2K
HVcc
HVcc
GND
GND
HSYNC
GND
HDRIVE
HGND
HBLK
GND
PDD2
VSYNC
GND
VSAWOUT
GND
VPARA1
VPARA2
+5V
SDA
SCL
GND
C
D
E
3
4
5
6

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 SUB DEFL. P.W.B.

CONVERGENCE

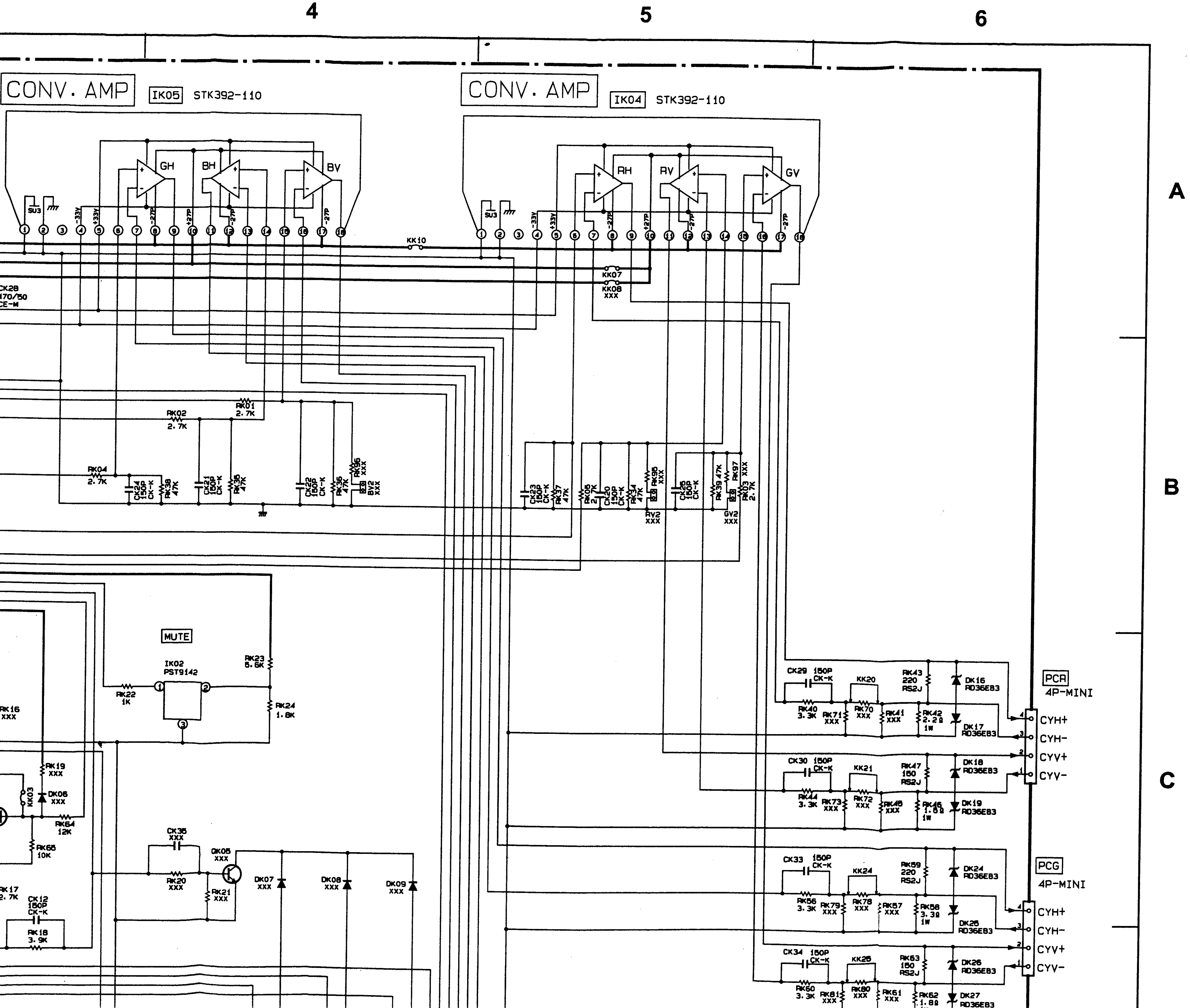

1
2
3
4
A
B
C
to DEFLECTION CIRCUIT
S.WIDE
31.5/33.75
GND
HOR.DET
13V
M13V
NC
TV9V
VSYNC
HBLK
M28V
28V
M27P
28P
KGND
CONV. AMP
IK05
STK392-110
GH
BH
BV
RK99 8.2 1/2W
CK18 0.01 MYL-K
CK19 0.01 MYL-K
DK04 RMPG06D
DK05 RMPG06D
CK27 470/50 CE-M
CK28 470/50 CE-M
CK37 CE-M 470/35
CK39 0.1 MYL-K
CK36 470/35 CE-M
CK38 0.1 MYL-K
RK93 XXX
RK82 XXX
KK01 XXX
RK92 1K
KK02
KK04
KK05
KK06
KK10
PDS
20P
BV
BH
GND
GV
GH
31.5/33.75
RV
RH
MUTE
LK01 0.8FB
LK02 0.8FB
LK03 0.8FB
LK04 0.8FB
LK05 0.8FB
LK06 0.8FB
RK06 2.7K
BV1 XXX
GV1 XXX
RV1 XXX
RK02 2.7K
RK01 2.7K
RK04 2.7K
CK24 150P CK-K
RK38 47K
CK21 150P CK-K
RK35 47K
CK22 150P CK-K
RK36 47K
RK36 XXX
BV2 XXX
RK08 2.7K
RK09 470 RD1/8J
QK02 2SA673 (C/D)
QK03 2SA673 (C/D)
RK10 1.2K
RK07 2.7K
-5VREG
RK12 1K
RK13 1K
QK01 2SC3852
+5VREG
IK01 BA17805
CK07 100/16 CE-M
CK09 0.1 MYL-K
CK10 100/16 CE-M
DK41 HZ6B3
DK40 HZ6B3
CK08 0.1 MYL-K
DK42 HZ6B3
CK03 100/16 CE-M
CK04 0.1 MYL-K
CK05 100/16 CE-M
CK06 0.1 MYL-K
MUTE
IK02 PST9142
RK22 1K
RK23 5.6K
RK24 1.8K
RK16 XXX
PDG
15P
-5V
GND
+5V
+5V(SRAM)
HBLK
D.SIZE
VSYNC
IR-IN
ADJ
BUSY
DIG.R
DIG.G
DIG.B
MAGIC SW.
+5V(Digital)
LK09 2.3 F.B
LK10 2.3 F.B
LK11 2.3FB
LK07 0.8FB
LK08 0.8FB
LK12 100uH
DK01 ED14
CK01 470/16 CE-M
CK02 220/16 CE-M
+5V REG
IK03 BA17805
DK43 HZ6B3
DK44 HZ6B3
CK14 0.1 MYL-K
CK13 0.1 MYL-K
CK11 100P
DK39 XXX
KK11
RK15 XXX
KK31
RK14 XXX
QK09 XXX
KK12
RK68 XXX
RK66 XXX
RK67 XXX
KK13
QK04 XXX
RK19 XXX
KK03
DK06 XXX
RK64 12K
RK65 10K
CK42 XXX
RK17 2.7K
CK12 150P CK-K
RK18 3.9K
CK35 XXX
QK05 XXX
RK20 XXX
RK21 XXX
DK07 XXX
DK08 XXX
DK09 XXX
RK11 1K
CK40
CK41
HC2112 ASY
UKDG
to DIGITAL CONV UNIT
SU3
CON

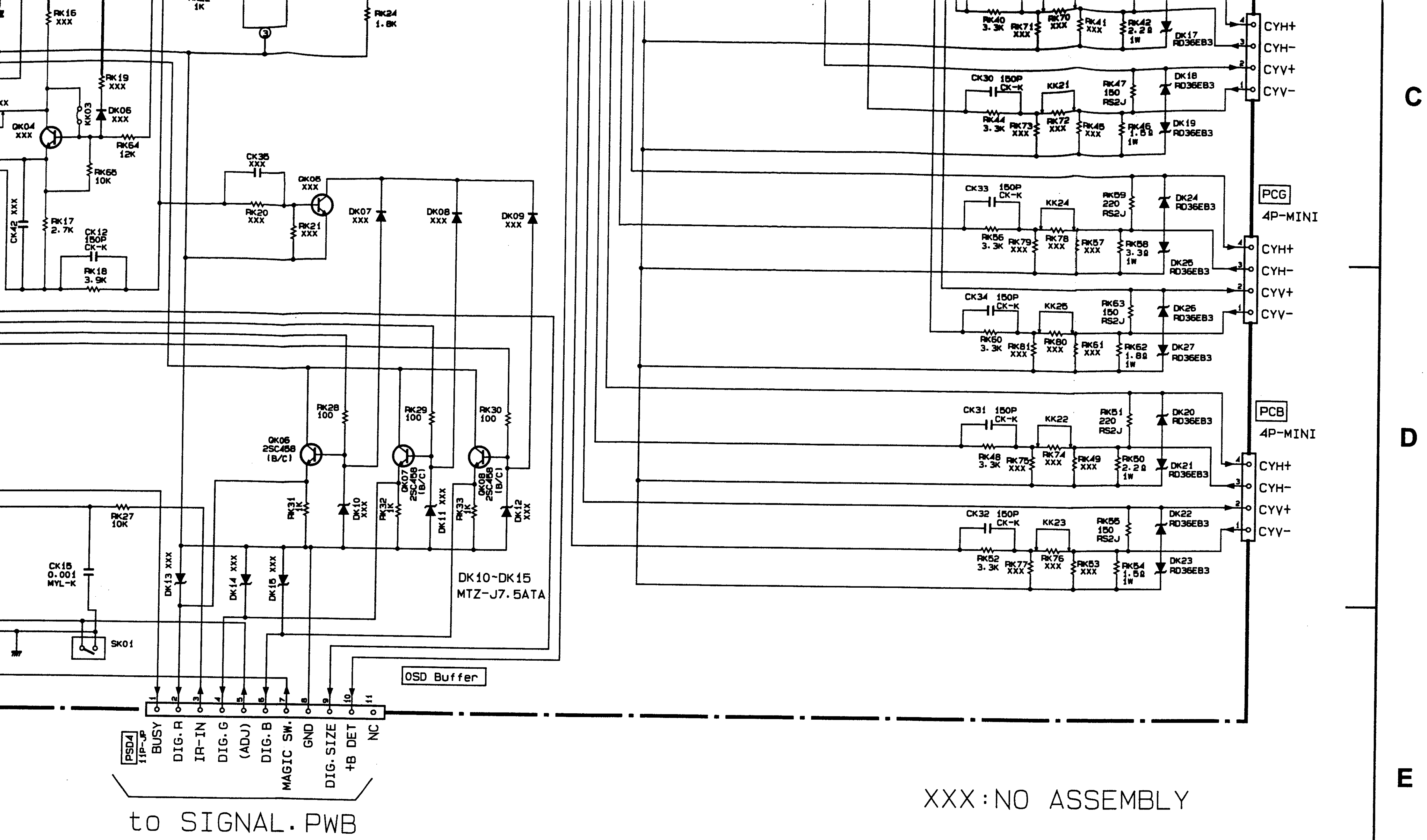

C
D
E
HC2112 ASY
to DIGITAL CON
UKDG
GND
+5V
+5V(SRAM)
HBLK
D.SIZE
VSYNC
IR-IN
ADJ
BUSY
DIG.R
DIG.G
DIG.B
MAGIC SW.
+5V(Digital)
+5V REG
IK03 BA17806
LK12 100uH
RK11 1K
RK90 10K
CK40 470/16 CE-M
CK41 0.1 MYL-K
PDS
20P
GND
S7
S6
S5
S4
S3
S2
S1
S0
GND
GND
DK30 ~ DK37 MTZ-J7.5ATA
KK15 XXX
KK09
RK25 47K
RK26 47K
CK16 0.1 MYL-K
CK17 0.1 MYL-K
CK15 0.001 MYL-K
RK27 10K
SK01
DK10-DK15 MTZ-J7.5ATA
QK06 2SC458 (B/C)
QK07 2SC458 (B/C)
QK08 2SC458 (B/C)
RK28 100
RK29 100
RK30 100
OSD Buffer
PDS1
PH-12P
S0
S1
S2
S3
S4
S5
S6
S7
GND
GND
NC
+5V (Digital)
to SENSOR DIST PWB
PSD4
11P-JP
BUSY
DIG.R
IR-IN
DIG.G
(ADJ)
DIG.B
MAGIC SW.
GND
DIG.SIZE
+B DET
NC
to SIGNAL.PWB

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sig
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemer

1
2
3
4

Manual. Don't degrade the safety of the receiver through improper servicing.


4
5
6
A
B
C
CONV. AMP
IK05 STK392-110
GH
BH
BV
CONV. AMP
IK04 STK392-110
RH
RV
GV
SU3
-33V
+33V
-27P
+27P
KK10
KK07
KK08 XXX
CK28 470/50 CE-M
RK01 2.7K
RK02 2.7K
RK04 2.7K
CK24 150P CK-K
RK38 47K
CK21 150P CK-K
RK36 47K
CK22 150P CK-K
RK35 47K
RK96 XXX
BV2 XXX
CK23 150P CK-K
RK37 47K
RK05 2.7K
CK20 150P CK-K
RK34 47K
RK95 XXX
RV2 XXX
CK25 150P CK-K
RK39 47K
RK97 XXX
RK03 2.7K
GV2 XXX
MUTE
IK02 PST9142
RK22 1K
RK23 5.6K
RK24 1.8K
RK16 XXX
RK19 XXX
DK06 XXX
KK03
RK64 12K
RK66 10K
RK17 2.7K
CK12 150P CK-K
RK18 3.9K
CK35 XXX
DK05 XXX
RK20 XXX
RK21 XXX
DK07 XXX
DK08 XXX
DK09 XXX
CK29 150P CK-K
KK20
RK43 220 RS2J
DK16 RD36EB3
RK40 3.3K
RK71 XXX
RK70 XXX
RK41 XXX
RK42 2.2Ω 1W
DK17 RD36EB3
PCR
4P-MINI
CYH+
CYH-
CYV+
CYV-
CK30 150P CK-K
KK21
RK47 150 RS2J
DK18 RD36EB3
RK44 3.3K
RK73 XXX
RK72 XXX
RK45 XXX
RK46 1.8Ω 1W
DK19 RD36EB3
CK33 150P CK-K
KK24
RK59 220 RS2J
DK24 RD36EB3
RK56 3.3K
RK79 XXX
RK78 XXX
RK57 XXX
RK58 3.3Ω 1W
DK25 RD36EB3
PCG
4P-MINI
CYH+
CYH-
CYV+
CYV-
CK34 150P CK-K
KK25
RK63 150 RS2J
DK26 RD36EB3
RK60 3.3K
RK81 XXX
RK80 XXX
RK61 XXX
RK62 1.8Ω
DK27 RD36EB3

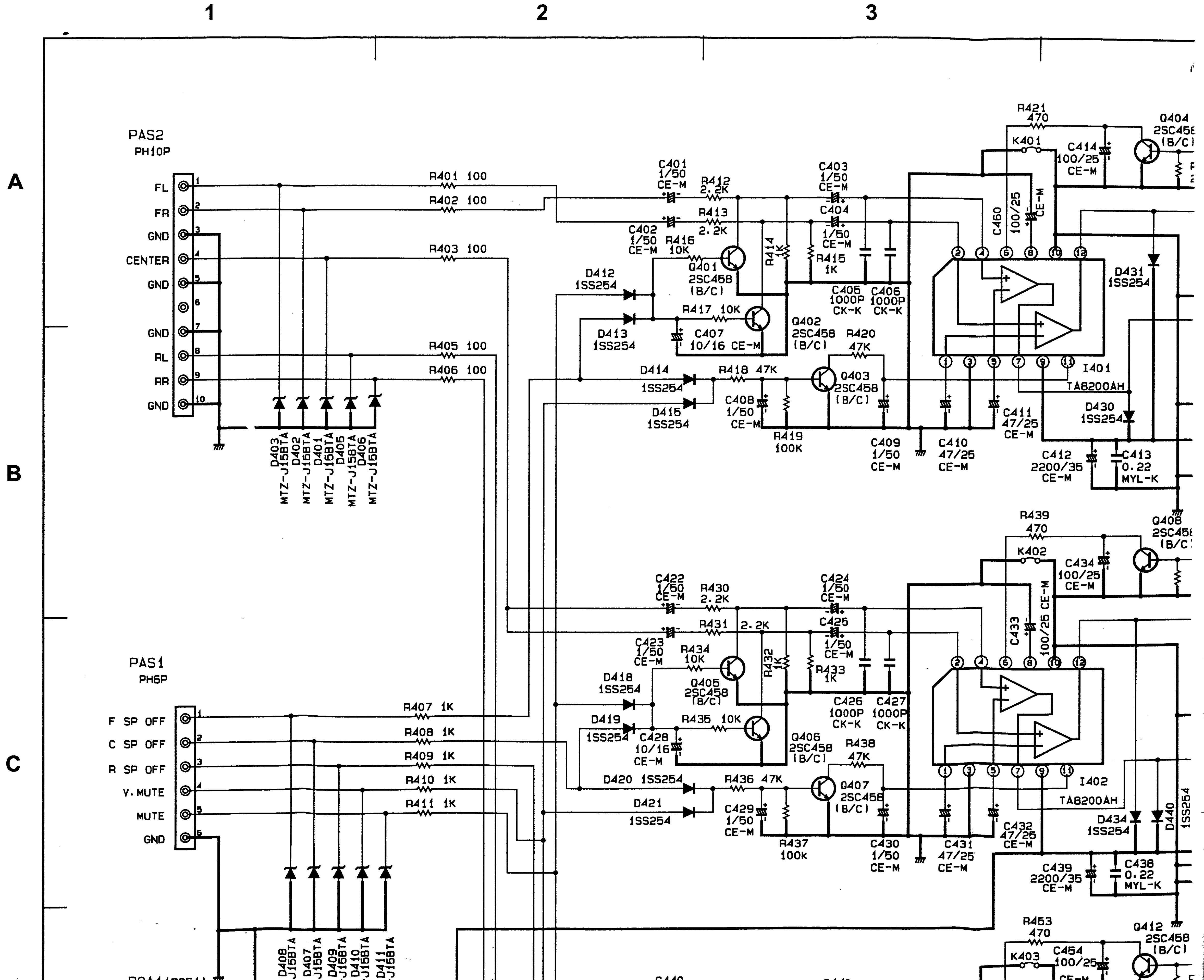

RK16 XXX
RK24 1.8K
RK19 XXX
KK03
DK06 XXX
QK04 XXX
RK64 12K
RK65 10K
CK42 XXX
RK17 2.7K
CK12 150P CK-K
RK18 3.9K
CK35 XXX
QK05 XXX
RK20 XXX
RK21 XXX
DK07 XXX
DK08 XXX
DK09 XXX
RK28 100
RK29 100
RK30 100
QK06 2SC458 (B/C)
QK07 2SC458 (B/C)
QK08 2SC458 (B/C)
RK31 1K
RK32 1K
RK33 1K
DK10 XXX
DK11 XXX
DK12 XXX
DK13 XXX
DK14 XXX
DK15 XXX
DK10~DK15
MTZ-J7.5ATA
RK27 10K
CK15 0.001 MYL-K
SK01
OSD Buffer
PSD4
11P-JP
BUSY
DIG.R
IR-IN
DIG.G
(ADJ)
DIG.B
MAGIC SW.
GND
DIG.SIZE
+B DET
NC
to SIGNAL.PWB
RK40 3.3K
RK71 XXX
RK70 XXX
RK41 XXX
RK42 2.2Ω 1W
DK17 RD36EB3
CK30 150P CK-K
KK21
RK47 150 RS2J
DK18 RD36EB3
RK44 3.3K
RK73 XXX
RK72 XXX
RK45
RK46 1.8Ω 1W
DK19 RD36EB3
CYH+
CYH-
CYV+
CYV-
PCG
4P-MINI
CK33 150P CK-K
KK24
RK59 220 RS2J
DK24 RD36EB3
RK56 3.3K
RK79 XXX
RK78 XXX
RK57 XXX
RK58 3.3Ω 1W
DK25 RD36EB3
CK34 150P CK-K
KK25
RK63 150 RS2J
DK26 RD36EB3
RK60 3.3K
RK81 XXX
RK80 XXX
RK61 XXX
RK62 1.8Ω 1W
DK27 RD36EB3
PCB
4P-MINI
CK31 150P CK-K
KK22
RK51 220 RS2J
DK20 RD36EB3
RK48 3.3K
RK75 XXX
RK74 XXX
RK49 XXX
RK50 2.2Ω 1W
DK21 RD36EB3
CK32 150P CK-K
KK23
RK55 150 RS2J
DK22 RD36EB3
RK52 3.3K
RK77 XXX
RK76 XXX
RK53 XXX
RK54 1.5Ω 1W
DK23 RD36EB3
C
D
E
3
4
5
6

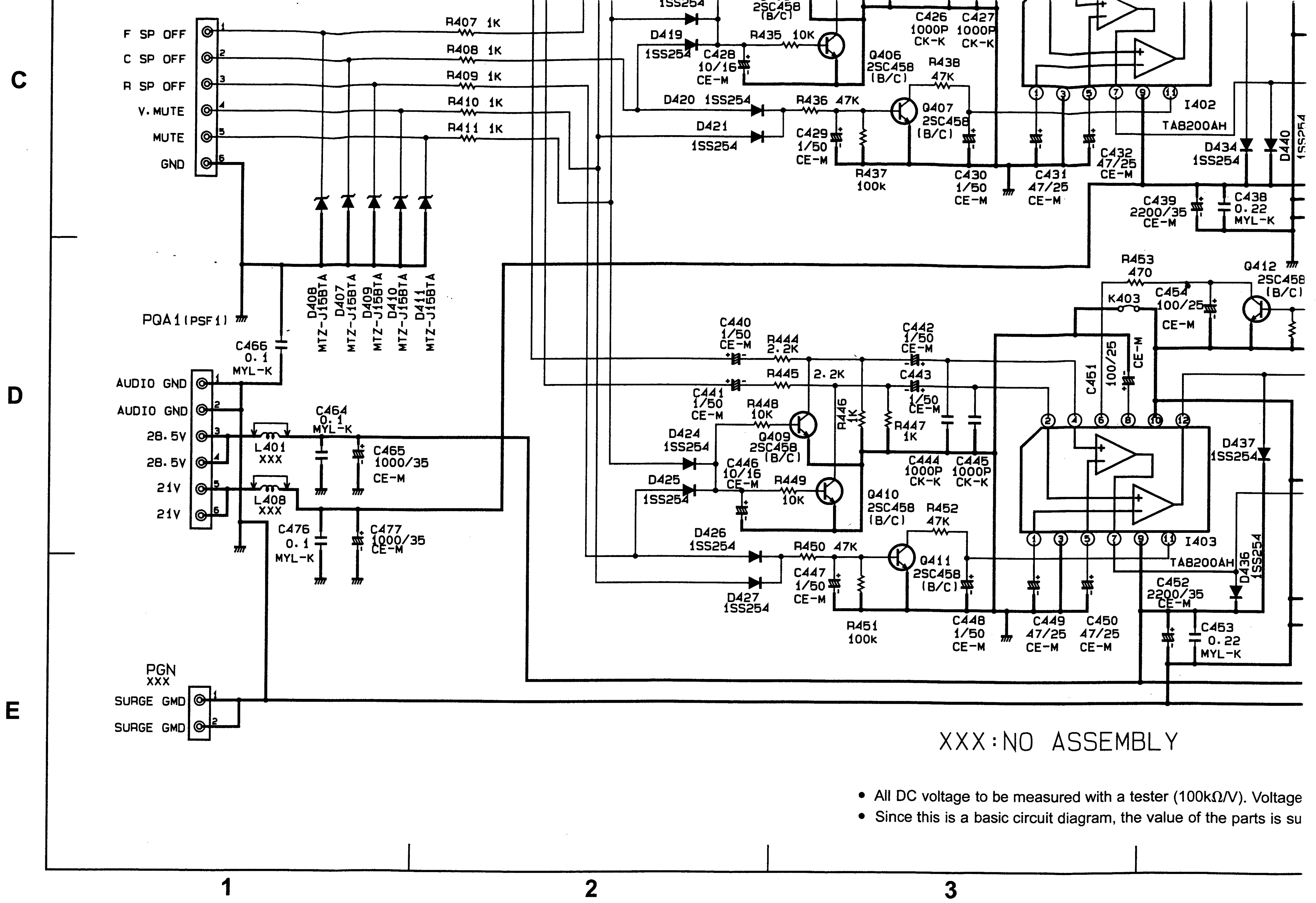
XXX: NO ASSEMBLY

age to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
s a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 CONVERGENCE P.W.B.

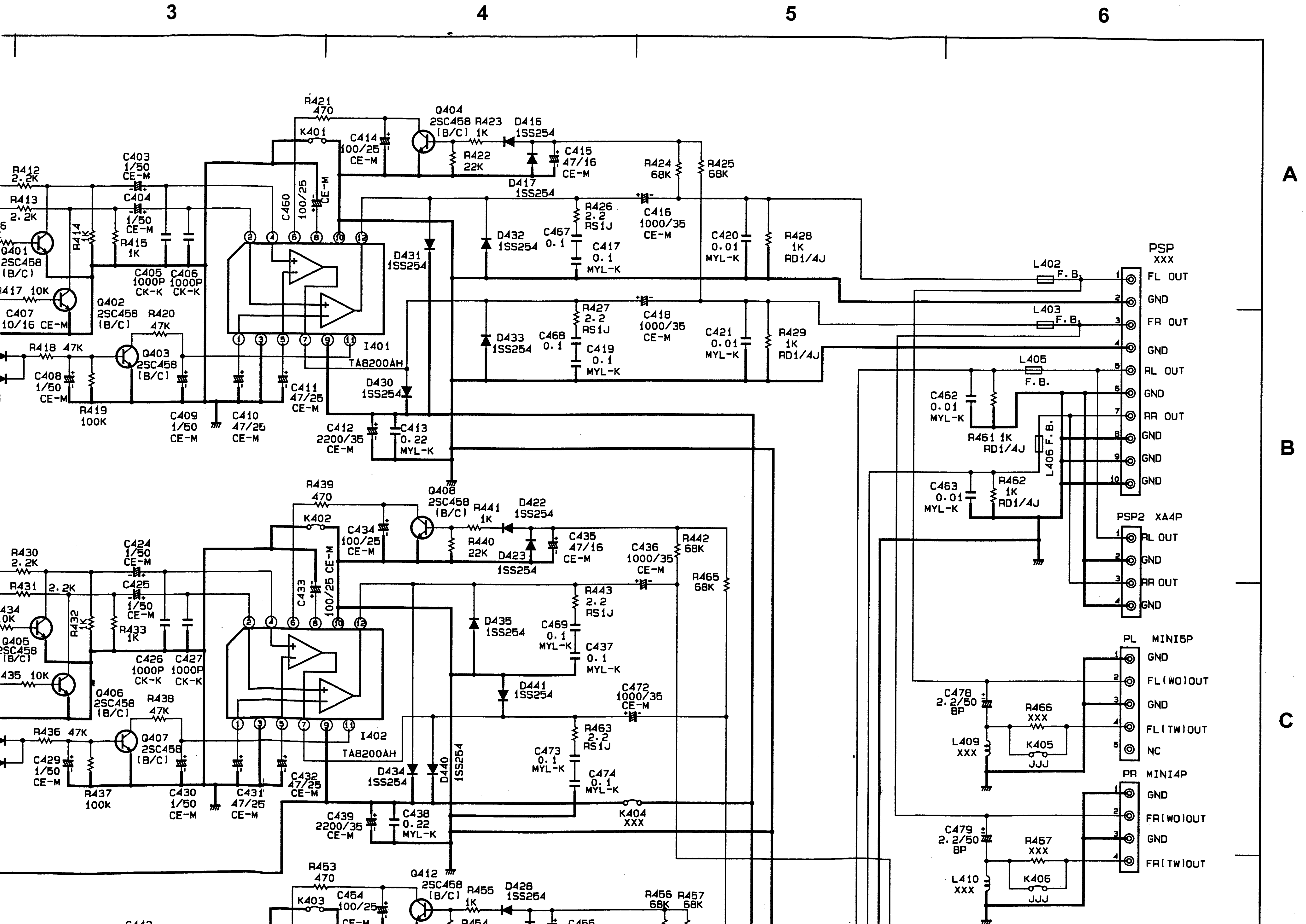
Manual. Don't degrade the safety of the receiver through improper servicing.

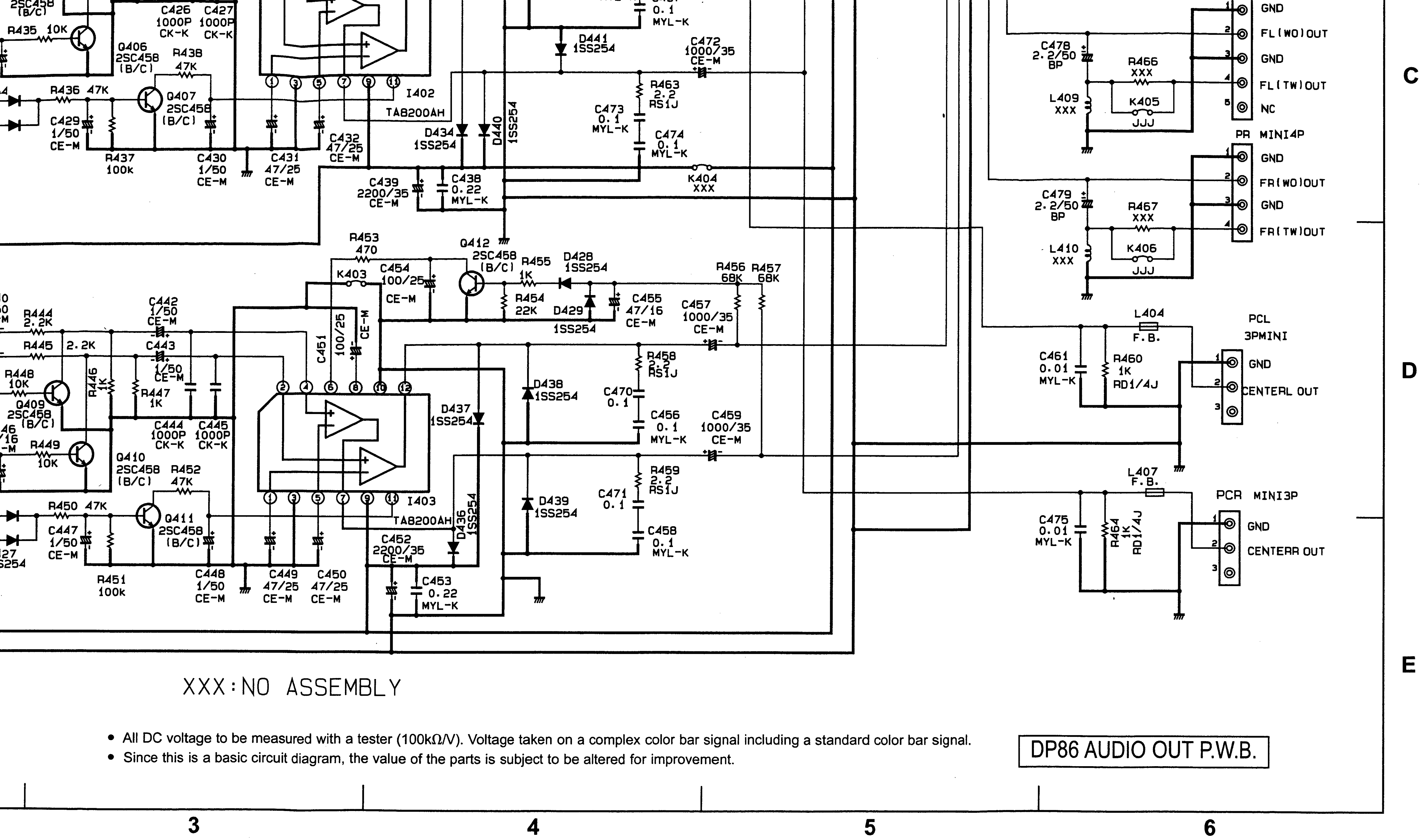

1
2
3
A
B
C
PAS2
PH10P
FL
FR
GND
CENTER
GND
GND
RL
RR
GND
R401 100
R402 100
R403 100
R405 100
R406 100
D403 MTZ-J15BTA
D402 MTZ-J15BTA
D401 MTZ-J15BTA
D405 MTZ-J15BTA
D406 MTZ-J15BTA
C401 1/50 CE-M
R412 2.2K
R413 2.2K
C402 1/50 CE-M
R416 10K
Q401 2SC458 (B/C)
R414 1K
C403 1/50 CE-M
C404 1/50 CE-M
R415 1K
C405 1000P CK-K
C406 1000P CK-K
D412 1SS254
D413 1SS254
R417 10K
C407 10/16 CE-M
Q402 2SC458 (B/C)
R420 47K
D414 1SS254
D415 1SS254
R418 47K
Q403 2SC458 (B/C)
C408 1/50 CE-M
R419 100K
C409 1/50 CE-M
C410 47/25 CE-M
C411 47/25 CE-M
R421 470
K401
C414 100/25 CE-M
Q404 2SC458 (B/C)
C460 100/25 CE-M
I401
TA8200AH
D431 1SS254
D430 1SS254
C412 2200/35 CE-M
C413 0.22 MYL-K
R439 470
K402
C434 100/25 CE-M
Q408 2SC458 (B/C)
C422 1/50 CE-M
R430 2.2K
R431 2.2K
C423 1/50 CE-M
C424 1/50 CE-M
C425 1/50 CE-M
R434 10K
Q405 2SC458 (B/C)
R432 1K
R433 1K
C426 1000P CK-K
C427 1000P CK-K
C433 100/25 CE-M
D418 1SS254
D419 1SS254
C428 10/16 CE-M
R435 10K
Q406 2SC458 (B/C)
R438 47K
D420 1SS254
D421 1SS254
R436 47K
Q407 2SC458 (B/C)
C429 1/50 CE-M
R437 100k
C430 1/50 CE-M
C431 47/25 CE-M
C432 47/25 CE-M
I402
TA8200AH
D434 1SS254
D440 1SS254
C439 2200/35 CE-M
C438 0.22 MYL-K
R453 470
K403
C454 100/25 CE-M
Q412 2SC458 (B/C)
PAS1
PH6P
F SP OFF
C SP OFF
R SP OFF
V.MUTE
MUTE
GND
R407 1K
R408 1K
R409 1K
R410 1K
R411 1K
D408 J15BTA
D407 J15BTA
D409 J15BTA
D410 J15BTA
D411 J15BTA


C
D
E
F SP OFF
C SP OFF
R SP OFF
V.MUTE
MUTE
GND
R407 1K
R408 1K
R409 1K
R410 1K
R411 1K
D408 MTZ-J15BTA
D407 MTZ-J15BTA
D409 MTZ-J15BTA
D410 MTZ-J15BTA
D411 MTZ-J15BTA
PQA1(PSF1)
C466 0.1 MYL-K
AUDIO GND
AUDIO GND
28.5V
28.5V
21V
21V
L401 XXX
L408 XXX
C464 0.1 MYL-K
C465 1000/35 CE-M
C476 0.1 MYL-K
C477 1000/35 CE-M
PGN XXX
SURGE GMD
SURGE GMD
1SS254
2SC458 (B/C)
D419 1SS254
C428 10/16 CE-M
R435 10K
Q406 2SC458 (B/C)
C426 1000P CK-K
C427 1000P CK-K
R438 47K
D420 1SS254
R436 47K
Q407 2SC458 (B/C)
D421 1SS254
C429 1/50 CE-M
R437 100k
C430 1/50 CE-M
C431 47/25 CE-M
C432 47/25 CE-M
I402 TA8200AH
D434 1SS254
D440 1SS254
C439 2200/35 CE-M
C438 0.22 MYL-K
R453 470
Q412 2SC458 (B/C)
K403
C454 100/25 CE-M
C451 100/25 CE-M
C440 1/50 CE-M
R444 2.2K
C442 1/50 CE-M
R445 2.2K
C443 1/50 CE-M
C441 1/50 CE-M
R448 10K
Q409 2SC458 (B/C)
R446 1K
R447 1K
C444 1000P CK-K
C445 1000P CK-K
D424 1SS254
C446 10/16 CE-M
D425 1SS254
R449 10K
Q410 2SC458 (B/C)
R452 47K
D426 1SS254
R450 47K
Q411 2SC458 (B/C)
D427 1SS254
C447 1/50 CE-M
R451 100k
C448 1/50 CE-M
C449 47/25 CE-M
C450 47/25 CE-M
I403 TA8200AH
D437 1SS254
D436 1SS254
C452 2200/35 CE-M
C453 0.22 MYL-K
1
2
3

XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage
- Since this is a basic circuit diagram, the value of the parts is su

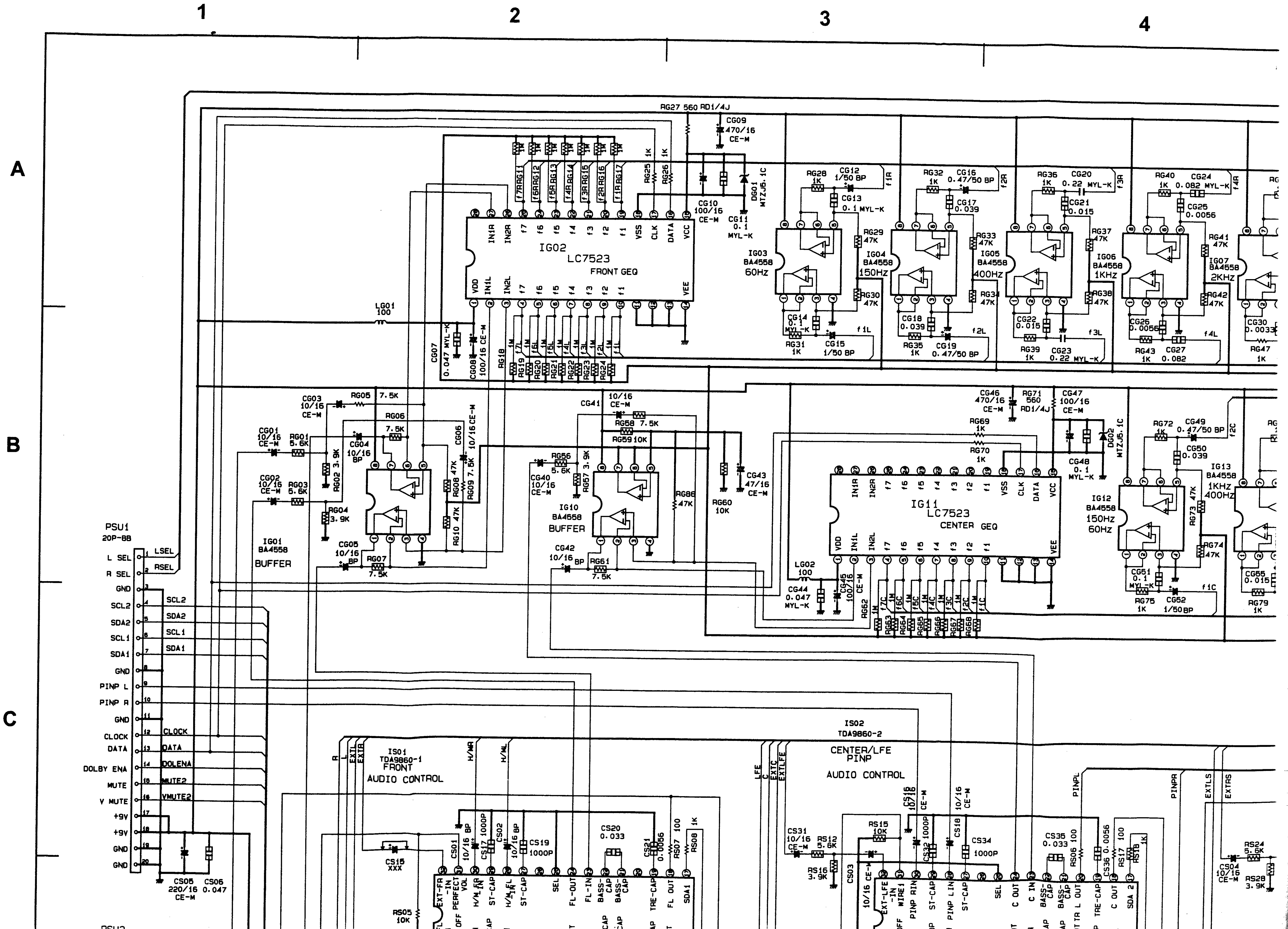

3
4
5
6
A
B
C
R412 2.2K
R413 2.2K
Q401 2SC458 (B/C)
R417 10K
C407 10/16 CE-M
Q402 2SC458 (B/C)
R414 1K
R415 1K
C403 1/50 CE-M
C404 1/50 CE-M
C405 1000P CK-K
C406 1000P CK-K
R420 47K
R418 47K
Q403 2SC458 (B/C)
C408 1/50 CE-M
R419 100K
C409 1/50 CE-M
C410 47/25 CE-M
C411 47/25 CE-M
R421 470
K401
C460 100/25 CE-M
C414 100/25 CE-M
Q404 2SC458 (B/C)
R423 1K
R422 22K
D416 1SS254
D417 1SS254
C415 47/16 CE-M
I401 TA8200AH
D431 1SS254
D430 1SS254
C412 2200/35 CE-M
C413 0.22 MYL-K
D432 1SS254
D433 1SS254
C467 0.1
C468 0.1
R426 2.2 RS1J
R427 2.2 RS1J
C417 0.1 MYL-K
C419 0.1 MYL-K
C416 1000/35 CE-M
C418 1000/35 CE-M
R424 68K
R425 68K
C420 0.01 MYL-K
C421 0.01 MYL-K
R428 1K RD1/4J
R429 1K RD1/4J
L402 F.B.
L403 F.B.
L405 F.B.
L406 F.B.
C462 0.01 MYL-K
C463 0.01 MYL-K
R461 1K RD1/4J
R462 1K RD1/4J
PSP XXX
FL OUT
GND
FR OUT
GND
RL OUT
GND
RR OUT
GND
GND
GND
PSP2 XA4P
RL OUT
GND
RR OUT
GND
PL MINI5P
GND
FL(WO)OUT
GND
FL(TW)OUT
NC
PR MINI4P
GND
FR(WO)OUT
GND
FR(TW)OUT
C478 2.2/50 BP
C479 2.2/50 BP
R466 XXX
R467 XXX
K405 JJJ
K406 JJJ
L409 XXX
L410 XXX
R430 2.2K
R431 2.2K
R434 10K
Q405 2SC458 (B/C)
R435 10K
R432 1K
R433 1K
C424 1/50 CE-M
C425 1/50 CE-M
C426 1000P CK-K
C427 1000P CK-K
Q406 2SC458 (B/C)
R438 47K
R436 47K
Q407 2SC458 (B/C)
C429 1/50 CE-M
R437 100k
C430 1/50 CE-M
C431 47/25 CE-M
C432 47/25 CE-M
R439 470
K402
C433 100/25 CE-M
C434 100/25 CE-M
Q408 2SC458 (B/C)
R441 1K
R440 22K
D422 1SS254
D423 1SS254
C435 47/16 CE-M
I402 TA8200AH
D434 1SS254
D440 1SS254
C439 2200/35 CE-M
C438 0.22 MYL-K
D435 1SS254
D441 1SS254
C469 0.1 MYL-K
C437 0.1 MYL-K
R443 2.2 RS1J
C436 1000/35 CE-M
R442 68K
R465 68K
C472 1000/35 CE-M
R463 2.2 RS1J
C473 0.1 MYL-K
C474 0.1 MYL-K
K404 XXX
R453 470
K403
C454 100/25 CE-M
Q412 2SC458 (B/C)
R455 1K
R454
D428 1SS254
C455
R456 68K
R457 68K
C442

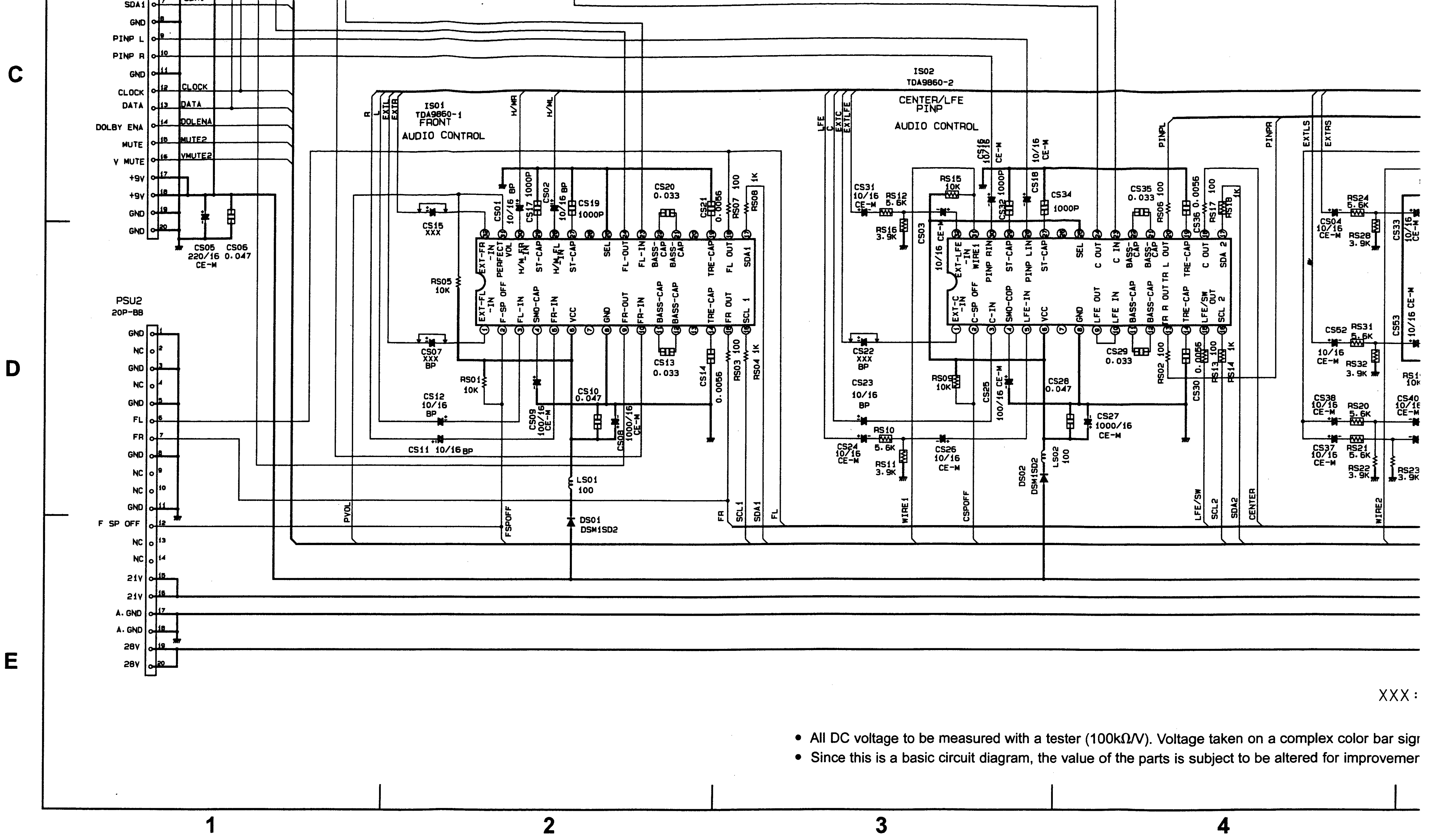

2SC458 (B/C)
R435 10K
C426 1000P CK-K
C427 1000P CK-K
Q406 2SC458 (B/C)
R438 47K
R436 47K
Q407 2SC458 (B/C)
C429 1/50 CE-M
R437 100k
C430 1/50 CE-M
C431 47/25 CE-M
C432 47/25 CE-M
I402
TA8200AH
D441 1SS254
0.1 MYL-K
C472 1000/35 CE-M
R463 2.2 RS1J
C473 0.1 MYL-K
C474 0.1 MYL-K
D434 1SS254
D440 1SS254
C439 2200/35 CE-M
C438 0.22 MYL-K
K404 XXX
C478 2.2/50 BP
R466 XXX
L409 XXX
K405 JJJ
GND
FL(WO)OUT
GND
FL(TW)OUT
NC
PR MINI4P
GND
FR(WO)OUT
GND
FR(TW)OUT
C479 2.2/50 BP
R467 XXX
L410 XXX
K406 JJJ
R453 470
Q412 2SC458 (B/C)
R455 1K
D428 1SS254
K403
C454 100/25 CE-M
R454 22K
D429 1SS254
C455 47/16 CE-M
R456 68K
R457 68K
C457 1000/35 CE-M
L404 F.B.
PCL 3PMINI
C461 0.01 MYL-K
R460 1K RD1/4J
GND
CENTERL OUT
R444 2.2K
C442 1/50 CE-M
C451 100/25 CE-M
R445 2.2K
C443 1/50 CE-M
R448 10K
R446 1K
R447 1K
Q409 2SC458 (B/C)
R449 10K
C444 1000P CK-K
C445 1000P CK-K
Q410 2SC458 (B/C)
R452 47K
D438 1SS254
R458 2.2 RS1J
C470 0.1
C456 0.1 MYL-K
C459 1000/35 CE-M
D437 1SS254
R450 47K
Q411 2SC458 (B/C)
C447 1/50 CE-M
R451 100k
C448 1/50 CE-M
C449 47/25 CE-M
C450 47/25 CE-M
I403
TA8200AH
D436 1SS254
C452 2200/35 CE-M
C453 0.22 MYL-K
D439 1SS254
R459 2.2 RS1J
C471 0.1
C458 0.1 MYL-K
L407 F.B.
PCR MINI3P
C475 0.01 MYL-K
R464 1K RD1/4J
GND
CENTERR OUT
C
D
E
3
4
5
6

XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

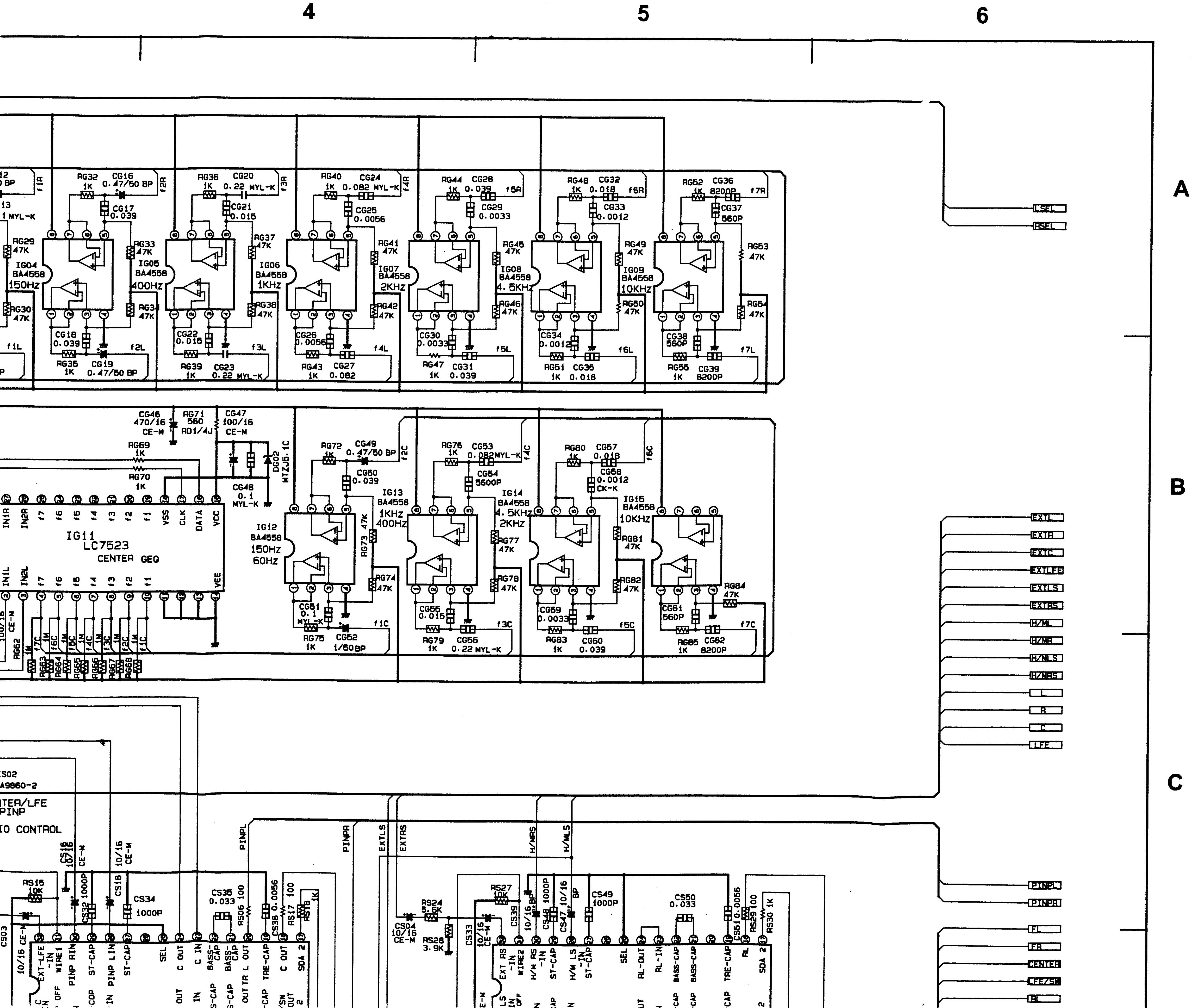
DP86 AUDIO OUT P.W.B.


1
2
3
4
A
B
C
IG02
LC7523
FRONT GEQ
IN1R
IN2R
VSS
CLK
DATA
VCC
VDD
IN1L
IN2L
VEE
RG27 560 RD1/4J
CG09 470/16 CE-M
CG10 100/16 CE-M
CG11 0.1 MYL-K
DG01 MTZJ5.1C
RG11
RG12
RG13
RG14
RG15
RG16
RG17
RG25 1K
RG26 1K
IG03 BA4558 60Hz
IG04 BA4558 150Hz
IG05 BA4558 400Hz
IG06 BA4558 1KHz
IG07 BA4558 2KHz
RG28 1K
CG12 1/50 BP
CG13 0.1 MYL-K
RG29 47K
RG30 47K
CG14 0.1 MYL-K
CG15 1/50 BP
RG31 1K
RG32 1K
CG16 0.47/50 BP
CG17 0.039
RG33 47K
RG34 47K
CG18 0.039
CG19 0.47/50 BP
RG35 1K
RG36 1K
CG20 0.22 MYL-K
CG21 0.015
RG37 47K
RG38 47K
CG22 0.015
CG23 0.22 MYL-K
RG39 1K
RG40 1K
CG24 0.082 MYL-K
CG25 0.0056
RG41 47K
RG42 47K
CG26 0.0056
CG27 0.082
RG43 1K
CG30 0.0033
RG47 1K
f1R
f2R
f3R
f4R
f1L
f2L
f3L
f4L
LG01 100
CG07 0.047 MYL-K
CG08 100/16 CE-M
RG18
RG19
RG20
RG21
RG22
RG23
RG24
IG01 BA4558 BUFFER
CG01 10/16 CE-M
CG02 10/16 CE-M
CG03 10/16 CE-M
CG04 10/16 BP
CG05 10/16 BP
CG06 10/16 CE-M
RG01 5.6K
RG02 3.9K
RG03 5.6K
RG04 3.9K
RG05 7.5K
RG06 7.5K
RG07 7.5K
RG08 47K
RG09 7.5K
RG10 47K
IG10 BA4558 BUFFER
CG40 10/16 CE-M
CG41 10/16 CE-M
CG42 10/16 BP
CG43 47/16 CE-M
RG56 5.6K
RG57 3.9K
RG58 7.5K
RG59 10K
RG60 10K
RG61 7.5K
RG86 47K
IG11
LC7523
CENTER GEQ
CG46 470/16 CE-M
RG71 560 RD1/4J
CG47 100/16 CE-M
CG48 0.1 MYL-K
DG02 MTZJ5.1C
RG69 1K
RG70 1K
LG02 100
CG44 0.047 MYL-K
CG45 100/16 CE-M
RG62
RG63
RG64
RG65
RG66
RG67
RG68
IG12 BA4558 150Hz 60Hz
IG13 BA4558 1KHz 400Hz
RG72 1K
CG49 0.47/50 BP
CG50 0.039
RG73 47K
RG74 47K
CG51 0.1 MYL-K
CG52 1/50BP
RG75 1K
CG55 0.015
RG79 1K
f1C
f2C
PSU1
20P-BB
L SEL
R SEL
GND
SCL2
SDA2
SCL1
SDA1
GND
PINP L
PINP R
GND
CLOCK
DATA
DOLBY ENA
MUTE
V MUTE
+9V
+9V
GND
GND
LSEL
RSEL
CLOCK
DATA
DOLENA
MUTE2
VMUTE2
CS05 220/16 CE-M
CS06 0.047
IS01
TDA9860-1
FRONT
AUDIO CONTROL
R
EXTL
EXTR
H/MR
H/ML
CS15 XXX
RS05 10K
CS01 10/16 BP
CS17 1000P
CS02 10/16 BP
CS19 1000P
CS20 0.033
CS21 0.0056
RS07 100
RS08 1K
EXT-FR-IN
OFF PERFECT VOL
H/M FR IN
ST-CAP
H/M FL IN
ST-CAP
SEL
FL-OUT
FL-IN
BASS-CAP
BASS-CAP
TRE-CAP
FL OUT
SDA1
IS02
TDA9860-2
CENTER/LFE
PINP
AUDIO CONTROL
LFE
C
EXTC
EXTLFE
CS31 10/16 CE-M
RS12 5.6K
RS16 3.9K
CS03 10/16 CE-M
RS15 10K
CS16 10/16 CE-M
CS32 1000P
CS18 10/16 CE-M
CS34 1000P
CS35 0.033
RS06 100
CS36 0.0056
RS17 100
RS18 1K
EXT-LFE-IN
OFF WIRE1
PINP RIN
ST-CAP
PINP LIN
ST-CAP
SEL
C OUT
C IN
BASS-CAP
BASS-CAP
TR L OUT
TRE-CAP
C OUT
SDA 2
PINPL
PINPR
EXTLS
EXTRS
CS04 10/16 CE-M
RS24 5.6K
RS28 3.9K
PSU2

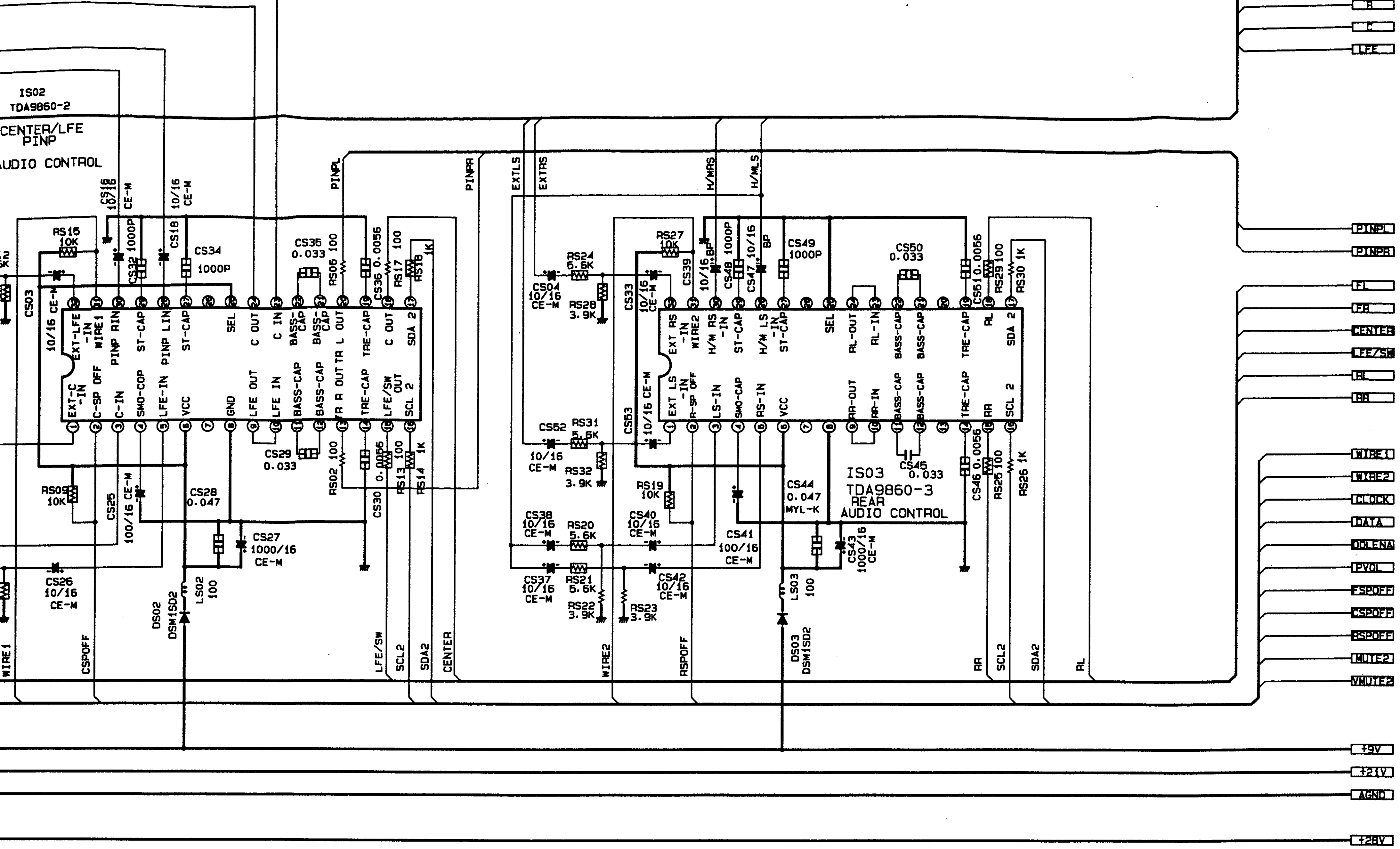

C
D
E
1
2
3
4
SDA1
GND
PINP L
PINP R
GND
CLOCK
DATA
DOLBY ENA
MUTE
V MUTE
+9V
+9V
GND
GND
CLOCK
DATA
DOLENA
MUTE2
VMUTE2
CS05 220/16 CE-M
CS06 0.047
PSU2
20P-BB
GND
NC
GND
NC
GND
FL
FR
GND
NC
NC
GND
F SP OFF
NC
NC
21V
21V
A.GND
A.GND
28V
28V
IS01
TDA9860-1
FRONT
AUDIO CONTROL
R
EXTL
EXTR
H/MR
H/ML
CS15 XXX
RS05 10K
CS07 XXX BP
RS01 10K
CS12 10/16 BP
CS11 10/16 BP
CS01 10/16 BP
CS17 1000P
CS02 10/16 BP
CS19 1000P
CS20 0.033
CS21 0.0056
RS07 100
RS08 1K
EXT-FR -IN
PERFECT VOL
H/M FR IN
ST-CAP
H/M FL IN
ST-CAP
SEL
FL-OUT
FL-IN
BASS-CAP
BASS-CAP
TRE-CAP
FL OUT
SDA1
EXT-FL -IN
F-SP OFF
FL-IN
SMO-CAP
FR-IN
VCC
GND
FR-OUT
FR-IN
BASS-CAP
BASS-CAP
TRE-CAP
FR OUT
SCL 1
CS13 0.033
CS14 0.0056
RS03 100
RS04 1K
CS09 100/16 CE-M
CS10 0.047
CS08 1000/16 CE-M
LS01 100
DS01 DSM1SD2
PVOL
FSPOFF
FR
SCL1
SDA1
FL
IS02
TDA9860-2
CENTER/LFE
PINP
AUDIO CONTROL
LFE
C
EXTC
EXTLFE
CS16 10/16 CE-M
CS18 10/16 CE-M
CS31 10/16 CE-M
RS12 5.6K
RS15 10K
RS16 3.9K
CS03 10/16 CE-M
CS32 1000P
CS34 1000P
CS35 0.033
RS06 100
CS36 0.0056
RS17 100
RS18 1K
EXT-LFE -IN
WIRE1
PINP RIN
ST-CAP
PINP LIN
ST-CAP
SEL
C OUT
C IN
BASS-CAP
BASS-CAP
FR R OUT TR L OUT
TRE-CAP
C OUT
SDA 2
EXT-C -IN
C-SP OFF
C-IN
SMO-COP
LFE-IN
VCC
GND
LFE OUT
LFE IN
BASS-CAP
BASS-CAP
TRE-CAP
LFE/SW OUT
SCL 2
CS22 XXX BP
CS23 10/16 BP
RS09 10K
CS25 100/16 CE-M
CS28 0.047
CS27 1000/16 CE-M
CS29 0.033
RS02 100
CS30 0.0056
RS13 100
RS14 1K
CS24 10/16 CE-M
RS10 5.6K
RS11 3.9K
CS26 10/16 CE-M
DS02 DSM1SD2
LS02 100
WIRE1
CSPOFF
LFE/SW
SCL2
SDA2
CENTER
PINPL
PINPR
EXTLS
EXTRS
CS04 10/16 CE-M
RS24 5.6K
RS28 3.9K
CS33 10/16 CE-M
CS52 10/16 CE-M
RS31 5.6K
RS32 3.9K
CS53 10/16 CE-M
CS38 10/16 CE-M
RS20 5.6K
CS37 10/16 CE-M
RS21 5.6K
RS22 3.9K
CS40 10/16 CE-M
RS23 3.9K
WIRE2
XXX :

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sigı
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemer

Manual. Don't degrade the safety of the receiver through improper servicing.



4
5
6
A
B
C
RG32 1K
CG16 0.47/50 BP
CG17 0.039
RG33 47K
IG05 BA4558 400Hz
RG34 47K
CG18 0.039
RG35 1K
CG19 0.47/50 BP
IG04 BA4558 150Hz
RG29 47K
RG30 47K
RG36 1K
CG20 0.22 MYL-K
CG21 0.015
RG37 47K
IG06 BA4558 1KHz
RG38 47K
CG22 0.015
RG39 1K
CG23 0.22 MYL-K
RG40 1K
CG24 0.082 MYL-K
CG25 0.0056
RG41 47K
IG07 BA4558 2KHz
RG42 47K
CG26 0.0056
RG43 1K
CG27 0.082
RG44 1K
CG28 0.039
CG29 0.0033
RG45 47K
IG08 BA4558 4.5KHz
RG46 47K
CG30 0.0033
RG47 1K
CG31 0.039
RG48 1K
CG32 0.018
CG33 0.0012
RG49 47K
IG09 BA4558 10KHz
RG50 47K
CG34 0.0012
RG51 1K
CG35 0.018
RG52 1K
CG36 8200P
CG37 560P
RG53 47K
RG54 47K
CG38 560P
RG55 1K
CG39 8200P
f1R
f2R
f3R
f4R
f5R
f6R
f7R
f1L
f2L
f3L
f4L
f5L
f6L
f7L
LSEL
RSEL
CG46 470/16 CE-M
RG71 560 RD1/4J
CG47 100/16 CE-M
RG69 1K
RG70 1K
CG48 0.1 MYL-K
DG02 MTZJ5.1C
IG11 LC7523 CENTER GEQ
IN1R IN2R f7 f6 f5 f4 f3 f2 f1 VSS CLK DATA VCC
IN1L IN2L f7 f6 f5 f4 f3 f2 f1 VEE
RG62 1M
RG63
RG64
RG65
RG66
RG67
RG68
f7C f6C f5C f4C f3C f2C f1C
RG72 1K
CG49 0.47/50 BP
CG50 0.039
IG12 BA4558 150Hz 60Hz
RG73 47K
RG74 47K
CG51 0.1 MYL-K
RG75 1K
CG52 1/50BP
IG13 BA4558 1KHz 400Hz
RG76 1K
CG53 0.082MYL-K
CG54 5600P
IG14 BA4558 4.5KHz 2KHz
RG77 47K
RG78 47K
CG55 0.015
RG79 1K
CG56 0.22 MYL-K
RG80 1K
CG57 0.018
CG58 0.0012 CK-K
IG15 BA4558 10KHz
RG81 47K
RG82 47K
CG59 0.0033
RG83 1K
CG60 0.039
CG61 560P
RG84 47K
RG85 1K
CG62 8200P
f1C f2C f3C f4C f5C f6C f7C
EXTL
EXTR
EXTC
EXTLFE
EXTLS
EXTRS
H/ML
H/MR
H/MLS
H/MRS
L
R
C
LFE
CS02
A9860-2
ITER/LFE
PINP
IO CONTROL
PINPL
PINPR
EXTLS
EXTRS
H/MRS
H/MLS
RS15 10K
CS16 10/16 CE-M
CS32 1000P
CS18 10/16 CE-M
CS34 1000P
CS35 0.033
RS06 100
CS36 0.0056
RS17 100
RS18 1K
CS03 10/16 CE-M
EXT-LFE -IN
PINP RIN WIRE1
ST-CAP
PINP LIN
ST-CAP
SEL
C OUT
C IN
BASS-CAP
BASS-CAP
TR L OUT
TRE-CAP
C OUT
SDA 2
RS24 5.6K
RS28 3.9K
CS04 10/16 CE-M
CS33 10/16 CE-M
CS39
RS27 10K
10/16 BP
CS48 1000P
CS47 10/16 BP
CS49 1000P
CS50 0.033
CS51 0.0056
RS29 100
RS30 1K
EXT RS -IN WIRE2
H/M RS -IN
ST-CAP
H/M LS -IN
ST-CAP
SEL
RL-OUT
RL-IN
BASS-CAP
BASS-CAP
TRE-CAP
RL
SDA 2
PINPL
PINPR
FL
FR
CENTER
LFE/SW
RL


IS02
TDA9860-2
CENTER/LFE
PINP
AUDIO CONTROL
IS03
TDA9860-3
REAR
AUDIO CONTROL
RS15 10K
CS16 10/16
CS32 1000P
CS18 10/16 CE-M
CS34 1000P
CS35 0.033
RS06 100
CS36 0.0056
RS17 100
RS18 1K
CS03 10/16 CE-M
RS09 10K
CS25 100/16 CE-M
CS26 10/16 CE-M
CS27 1000/16 CE-M
CS28 0.047
CS29 0.033
RS02 100
CS30 0.0056
RS13 100
RS14 1K
LS02 100
DS02 DSM1SD2
RS24 5.6K
CS04 10/16 CE-M
RS28 3.9K
CS33 10/16 CE-M
RS27 10K
CS39 10/16 BP
CS48 1000P
CS47 10/16 BP
CS49 1000P
CS50 0.033
CS51 0.0056
RS29 100
RS30 1K
CS52 10/16 CE-M
RS31 5.6K
RS32 3.9K
CS53 10/16 CE-M
RS19 10K
CS38 10/16 CE-M
RS20 5.6K
CS40 10/16 CE-M
CS37 10/16 CE-M
RS21 5.6K
RS22 3.9K
CS42 10/16 CE-M
RS23 3.9K
CS41 100/16 CE-M
CS44 0.047 MYL-K
CS43 1000/16 CE-M
CS45 0.033
CS46 0.0056
RS25 100
RS26 1K
LS03 100
DS03 DSM1SD2
EXT-C-IN
C-SP OFF
C-IN
SMO-COP
LFE-IN
VCC
GND
LFE OUT
LFE IN
BASS-CAP
TR R OUT
TRE-CAP
LFE/SW OUT
SCL 2
EXT-LFE-IN
WIRE1
PINP RIN
ST-CAP
PINP LIN
SEL
C OUT
C IN
TR L OUT
SDA 2
EXT LS-IN
R-SP OFF
LS-IN
RS-IN
RR-OUT
RR-IN
RR
EXT RS-IN
WIRE2
H/W RS-IN
H/W LS-IN
RL-OUT
RL-IN
RL
PINPL
PINPR
EXTLS
EXTRS
H/WRS
H/WLS
WIRE1
CSPOFF
LFE/SW
SCL2
SDA2
CENTER
WIRE2
RSPOFF
RR
SCL2
SDA2
RL
R
C
LFE
PINPL
PINPR
FL
FR
CENTER
LFE/SW
RL
RR
WIRE1
WIRE2
CLOCK
DATA
DOLENA
PVOL
FSPOFF
CSPOFF
RSPOFF
MUTE2
VMUTE2
+9V
+21V
AGND
+28V

C

D

E

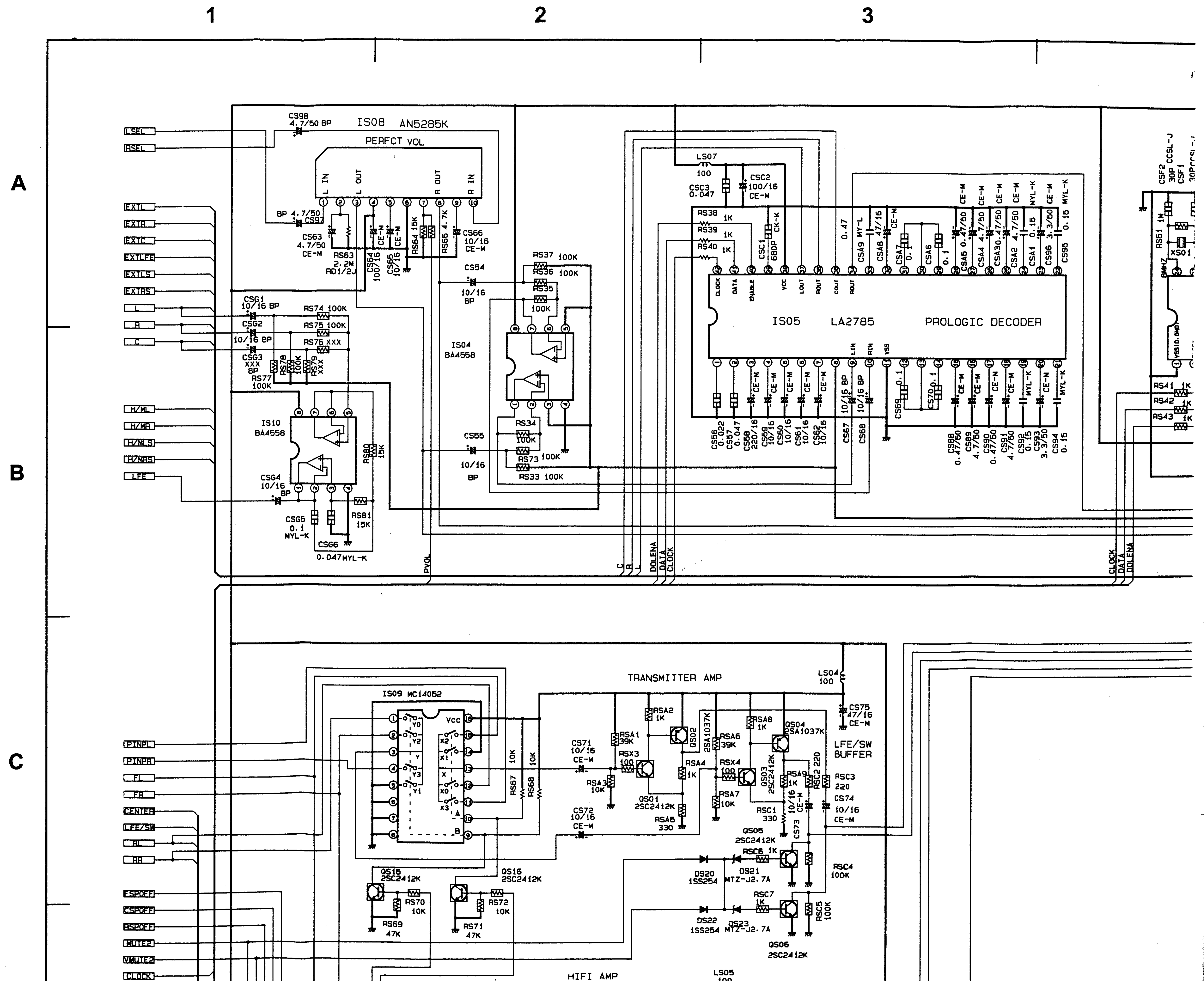
XXX:NO ASSEMBLY

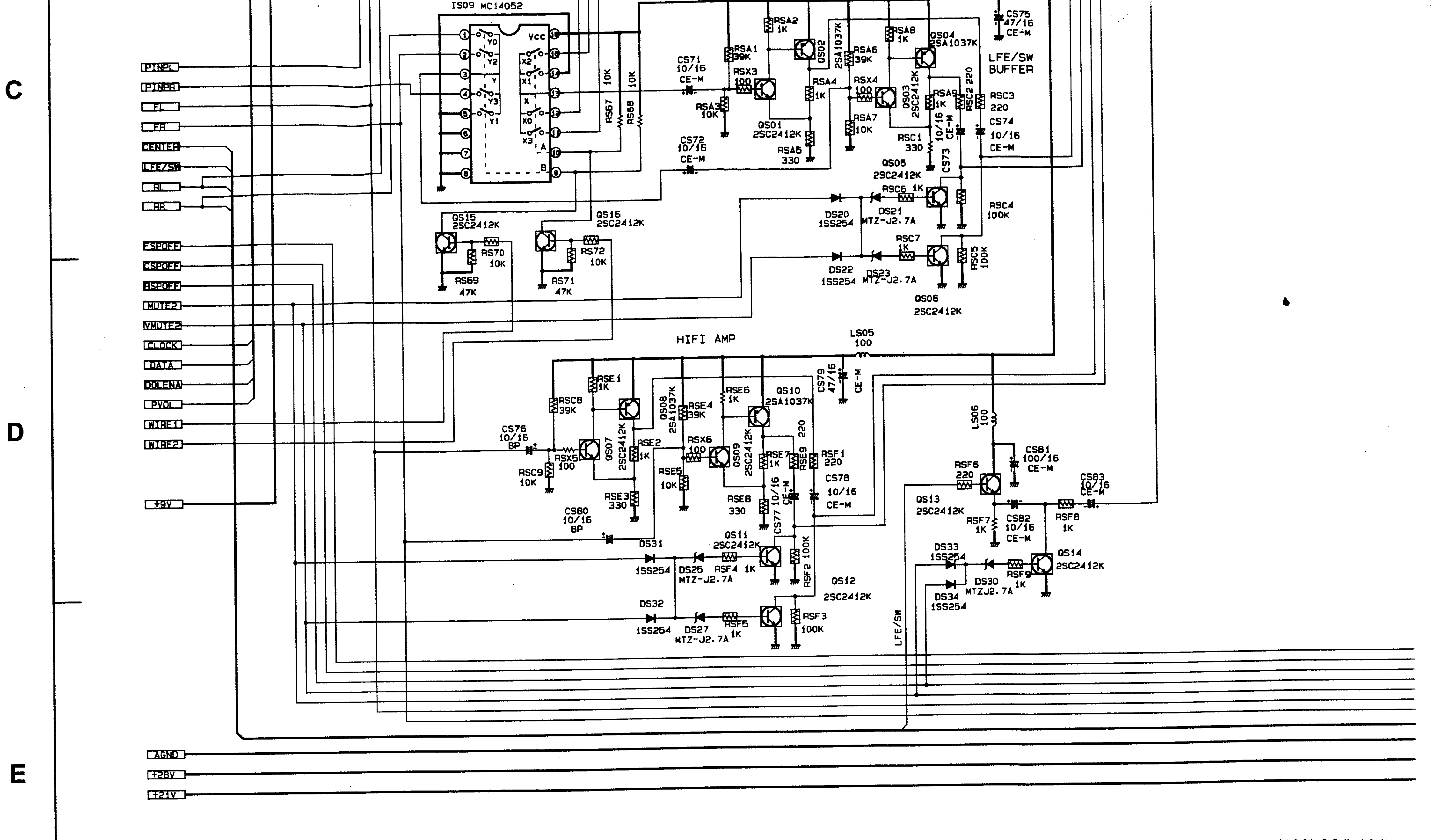
to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 SURROUND P.W.B. 1/2

4 5 6

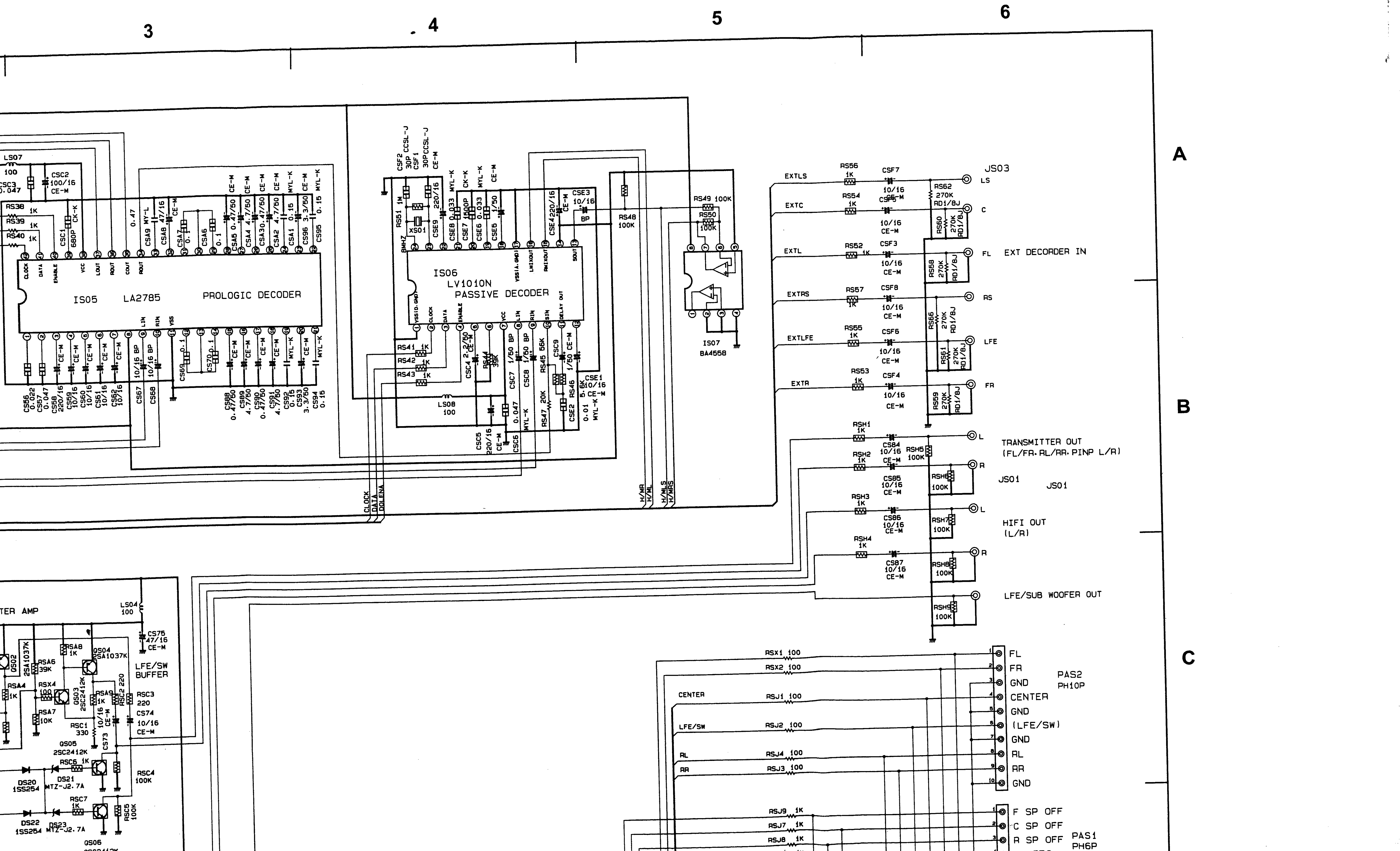
Manual. Don't degrade the safety of the receiver through improper servicing.

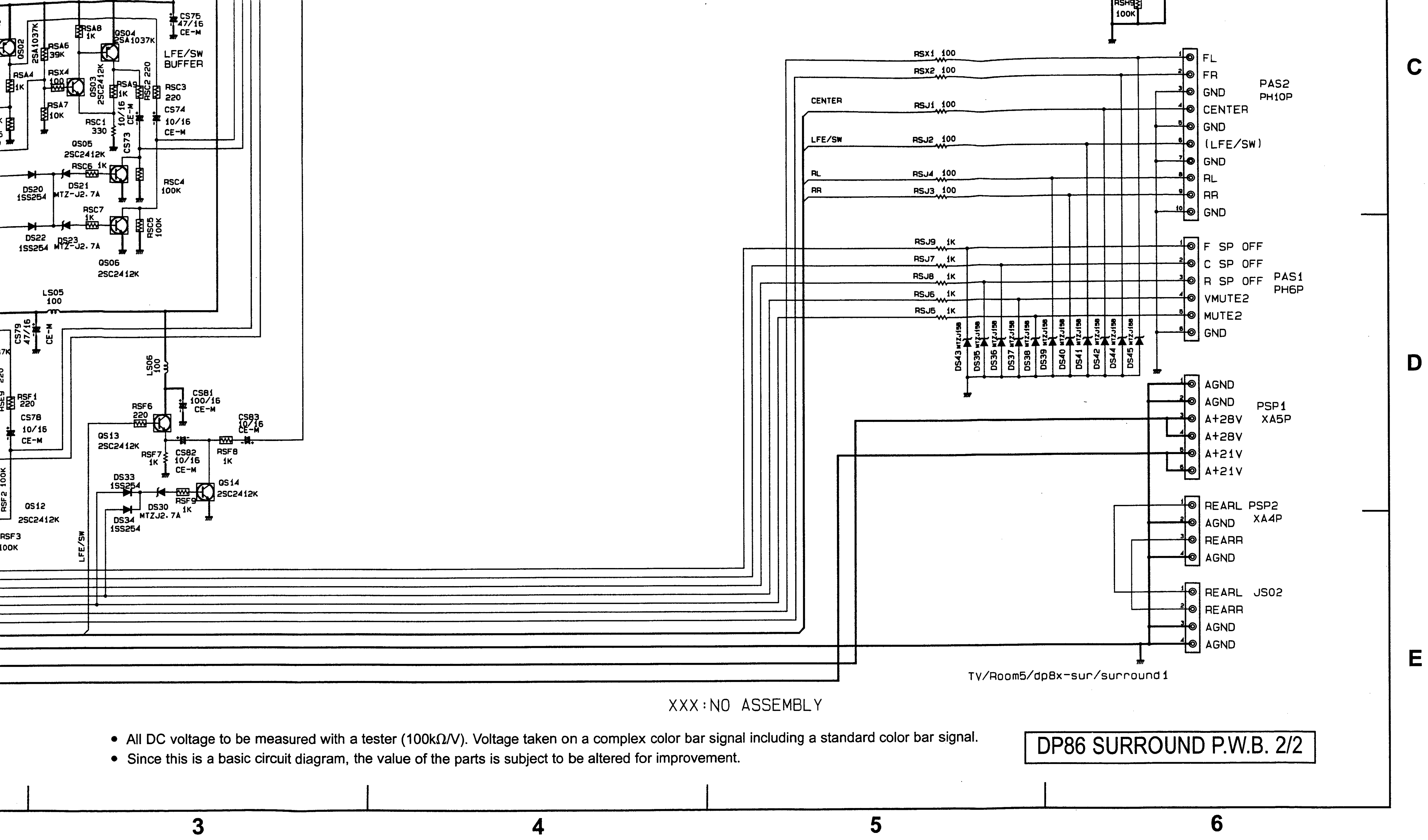

1
2
3
A
B
C
LSEL
RSEL
EXTL
EXTR
EXTC
EXTLFE
EXTLS
EXTRS
L
R
C
H/ML
H/MR
H/MLS
H/MRS
LFE
IS08 AN5285K
PERFCT VOL
L IN
L OUT
R OUT
R IN
CS98 4.7/50 BP
CS97 BP 4.7/50
CS63 4.7/50 CE-M
RS63 2.2M RD1/2J
CS64 100/16
CS65 10/16
RS64 15K
RS65 4.7K
CS66 10/16 CE-M
CS54 10/16 BP
CS55 10/16 BP
CSG1 10/16 BP
CSG2 10/16 BP
CSG3 XXX BP
RS74 100K
RS75 100K
RS76 XXX
RS77 100K
RS78 100K
RS79 XXX
IS10 BA4558
RS80 15K
CSG4 10/16 BP
CSG5 0.1 MYL-K
CSG6 0.047MYL-K
RS81 15K
PVOL
IS04 BA4558
RS37 100K
RS36 100K
RS35 100K
RS34 100K
RS73 100K
RS33 100K
C
R
L
DOLENA
DATA
CLOCK
LS07 100
CSC3 0.047
CSC2 100/16 CE-M
RS38 1K
RS39 1K
RS40 1K
CSC1 680P CK-K
IS05 LA2785 PROLOGIC DECODER
CLOCK
DATA
ENABLE
VCC
LOUT
ROUT
COUT
SOUT
LIN
RIN
VSS
CSA9 MY-L
CSA8 47/16
CSA7 0.1
CSA6 0.1
CSA5 0.47/50
CSA4 4.7/50
CSA3 0.47/50
CSA2 4.7/50
CSA1 0.15
CS96 3.3/50
CS95 0.15
CS56 0.022
CS57 0.047
CS58 220/16
CS59 10/16
CS60 10/16
CS61 10/16
CS62 10/16
CS67 10/16 BP
CS68 10/16 BP
CS69 0.1
CS70 0.1
CS88 0.47/50
CS89 4.7/50
CS90 0.47/50
CS91 4.7/50
CS92 0.15
CS93 3.3/50
CS94 0.15
CSF2 30P CCSL-J
CSF1
RS51 1M
XS01
8MHZ
RS41 1K
RS42 1K
RS43 1K
CLOCK
DATA
DOLENA
PINPL
PINPR
FL
FR
CENTER
LFE/SW
RL
RR
ESPOFF
CSPOFF
RSPOFF
MUTE2
VMUTE2
CLOCK
IS09 MC14052
VCC
RS67 10K
RS68 10K
QS15 2SC2412K
RS69 47K
RS70 10K
QS16 2SC2412K
RS71 47K
RS72 10K
TRANSMITTER AMP
CS71 10/16 CE-M
CS72 10/16 CE-M
RSA1 39K
RSA2 1K
RSA3 10K
RSX3 100
QS01 2SC2412K
QS02 2SA1037K
RSA4 1K
RSA5 330
RSA6 39K
RSA7 10K
RSX4 100
RSA8 1K
QS03 2SC2412K
QS04 2SA1037K
RSA9 1K
RSC1 330
RSC2 220
RSC3 220
CS73 10/16 CE-M
CS74 10/16 CE-M
LS04 100
CS75 47/16 CE-M
LFE/SW BUFFER
QS05 2SC2412K
RSC6 1K
DS20 1SS254
DS21 MTZ-J2.7A
RSC4 100K
RSC7 1K
DS22 1SS254
DS23 MTZ-J2.7A
RSC5 100K
QS06 2SC2412K
HIFI AMP
LS05 100


C
D
E
IS09 MC14052
PINPL
PINPR
FL
FR
CENTER
LFE/SW
RL
RR
FSPOFF
CSPOFF
RSPOFF
MUTE2
VMUTE2
CLOCK
DATA
DOLENA
PVOL
WIRE1
WIRE2
+9V
AGND
+28V
+21V
LFE/SW BUFFER
HIFI AMP
LS05 100
LS06 100
QS01 2SC2412K
QS02 2SA1037K
QS03 2SC2412K
QS04 2SA1037K
QS05 2SC2412K
QS06 2SC2412K
QS07 2SC2412K
QS08 2SA1037K
QS09 2SC2412K
QS10 2SA1037K
QS11 2SC2412K
QS12 2SC2412K
QS13 2SC2412K
QS14 2SC2412K
QS15 2SC2412K
QS16 2SC2412K
CS71 10/16 CE-M
CS72 10/16 CE-M
CS73 10/16 CE-M
CS74 10/16 CE-M
CS75 47/16 CE-M
CS76 10/16 BP
CS77 10/16 CE-M
CS78 10/16 CE-M
CS79 47/16 CE-M
CS80 10/16 BP
CS81 100/16 CE-M
CS82 10/16 CE-M
CS83 10/16 CE-M
DS20 1SS254
DS21 MTZ-J2.7A
DS22 1SS254
DS23 MTZ-J2.7A
DS26 MTZ-J2.7A
DS27 MTZ-J2.7A
DS30 MTZJ2.7A
DS31 1SS254
DS32 1SS254
DS33 1SS254
DS34 1SS254
RS67 10K
RS68 10K
RS69 47K
RS70 10K
RS71 47K
RS72 10K
RSA1 39K
RSA2 1K
RSA3 10K
RSA4 1K
RSA5 330
RSA6 39K
RSA7 10K
RSA8 1K
RSA9 1K
RSX3 100
RSX4 100
RSX5 100
RSX6 100
RSC1 330
RSC2 220
RSC3 220
RSC4 100K
RSC5 100K
RSC6 1K
RSC7 1K
RSC8 39K
RSC9 10K
RSE1 1K
RSE2 1K
RSE3 330
RSE4 39K
RSE5 10K
RSE6 1K
RSE7 1K
RSE8 330
RSE9 220
RSF1 220
RSF2 100K
RSF3 100K
RSF4 1K
RSF5 1K
RSF6 220
RSF7 1K
RSF8 1K
RSF9 1K
1
2
3

- All DC voltage to be measured with a tester (100kΩ/V). Voltage
- Since this is a basic circuit diagram, the value of the parts is su

BASIC CIRCUIT DIAGRAM

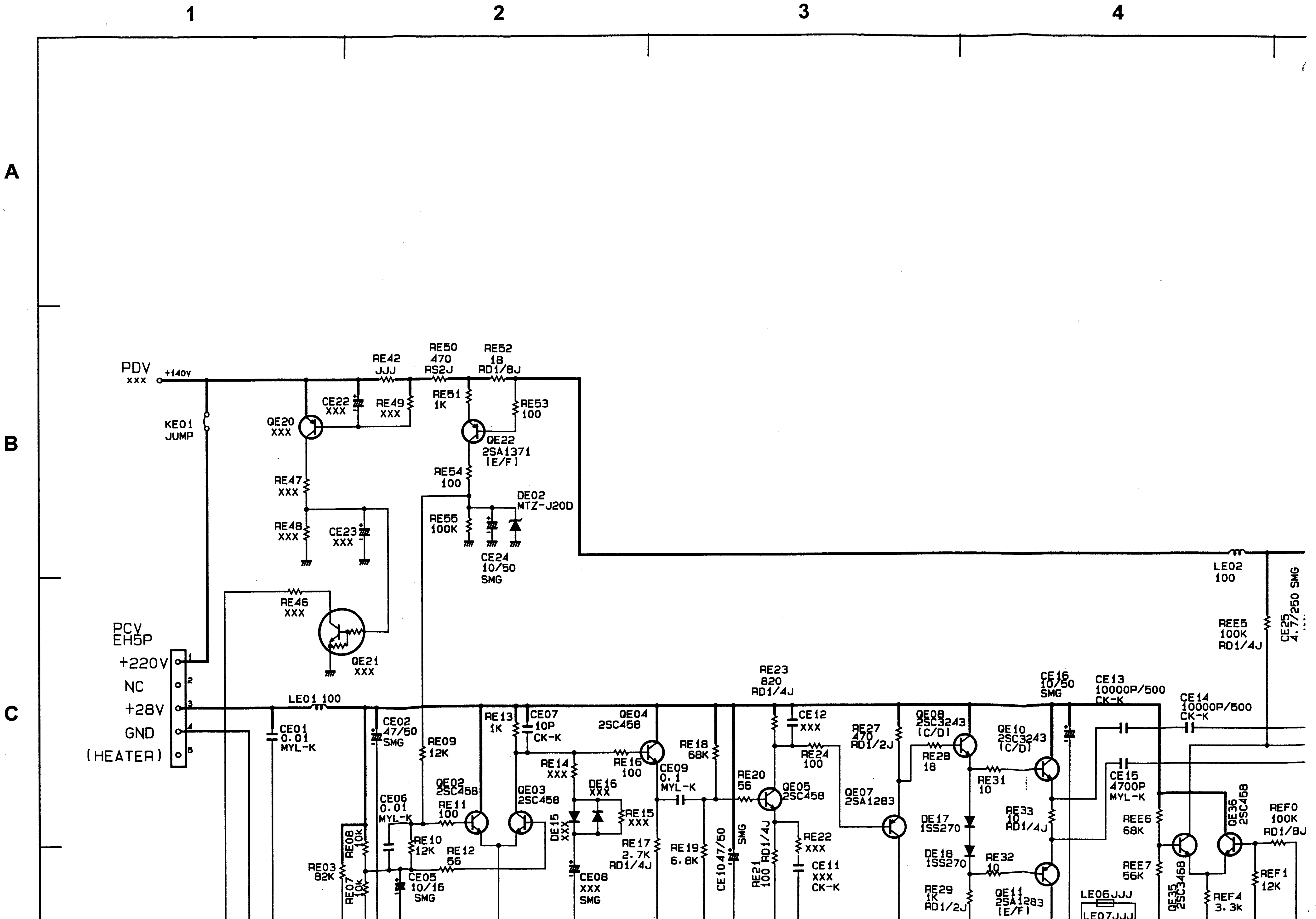

3
4
5
6
A
B
C
IS05 LA2785 PROLOGIC DECODER
CLOCK
DATA
ENABLE
VCC
LOUT
ROUT
COUT
LIN
RIN
VSS
LS07 100
CSC2 100/16 CE-M
CSC3 0.047
RS38 1K
RS39 1K
RS40 1K
CSC1 680P CK-K
CSA9 MY-L 0.47
CSA8 47/16
CSA7 0.1
CSA6 0.1
CSA5 0.47/50 CE-M
CSA4 4.7/50 CE-M
CSA3 0.47/50 CE-M
CSA2 4.7/50 CE-M
CSA1 0.15 MYL-K
CS96 3.3/50 CE-M
CS95 0.15 MYL-K
CS56 0.022
CS57 0.047
CS58 220/16
CS59 10/16
CS60 10/16
CS61 10/16
CS62 10/16
CS67 10/16 BP
CS68 10/16 BP
CS69 0.1
CS70 0.1
CS88 0.47/50
CS89 4.7/50
CS90 0.47/50
CS91 4.7/50
CS92 0.15
CS93 3.3/50
CS94 0.15
CE-M
MYL-K
IS06 LV1010N PASSIVE DECODER
VSS(D.GND)
CLOCK
DATA
ENABLE
VCC
LIN
RIN
SIN
DELAY OUT
VSS(A.GND)
LMIXOUT
RMIXOUT
SOUT
8MHZ
XS01
RS51 1M
CSF2 30P CCSL-J
CSF1 30P CCSL-J
CSE9 220/16 CE-M
CSE8 0.033 MYL-K
CSE7 1500P CK-K
CSE6 0.033 MYL-K
CSE5 1/50 CE-M
CSE4 220/16 CE-M
CSE3 10/16 BP
CSE1 10/16 CE-M
CSE2 0.01 MYL-K
RS41 1K
RS42 1K
RS43 1K
RS44 39K
RS45 56K
RS46 5.6K
RS47 20K
CSC4 2.2/50 CE-M
CSC5 220/16 CE-M
CSC6 0.047 MYL-K
CSC7 1/50 BP
CSC8 1/50 BP
CSC9 1/50 CE-M
LS08 100
RS48 100K
RS49 100K
RS50 100K
IS07 BA4558
CLOCK
DATA
DOLENA
H/MR
H/ML
H/MLS
H/MRS
EXTLS
EXTC
EXTL
EXTRS
EXTLFE
EXTR
RS56 1K
RS54 1K
RS52 1K
RS57 1K
RS55 1K
RS53 1K
CSF7 10/16 CE-M
CSF5 10/16 CE-M
CSF3 10/16 CE-M
CSF8 10/16 CE-M
CSF6 10/16 CE-M
CSF4 10/16 CE-M
RS62 270K RD1/8J
RS60 270K RD1/8J
RS58 270K RD1/8J
RS66 270K RD1/8J
RS61 270K RD1/8J
RS59 270K RD1/8J
JS03
LS
C
FL
RS
LFE
FR
EXT DECORDER IN
RSH1 1K
RSH2 1K
RSH3 1K
RSH4 1K
CS84 10/16 CE-M
CS85 10/16 CE-M
CS86 10/16 CE-M
CS87 10/16 CE-M
RSH5 100K
RSH6 100K
RSH7 100K
RSH8 100K
RSH9 100K
L
R
TRANSMITTER OUT (FL/FR. RL/RR. PINP L/R)
JS01
JS01
HIFI OUT (L/R)
LFE/SUB WOOFER OUT
TER AMP
LS04 100
CS75 47/16 CE-M
QS02
2SA1037K
RSA6 39K
RSA4 1K
RSX4 100
RSA7 10K
RSA8 1K
QS04 2SA1037K
QS03 2SC2412K
RSA9 1K
RSC2 220
RSC3 220
CS74 10/16 CE-M
CS73 10/16 CE-M
RSC1 330
LFE/SW BUFFER
QS05 2SC2412K
RSC6 1K
RSC4 100K
DS20 1SS254
DS21 MTZ-J2.7A
RSC7 1K
RSC5 100K
DS22 1SS254
DS23 MTZ-J2.7A
QS06
RSX1 100
RSX2 100
CENTER
RSJ1 100
LFE/SW
RSJ2 100
RL
RSJ4 100
RR
RSJ3 100
FL
FR
GND
CENTER
GND
(LFE/SW)
GND
RL
RR
GND
PAS2 PH10P
RSJ9 1K
RSJ7 1K
RSJ8 1K
F SP OFF
C SP OFF
R SP OFF
PAS1 PH6P

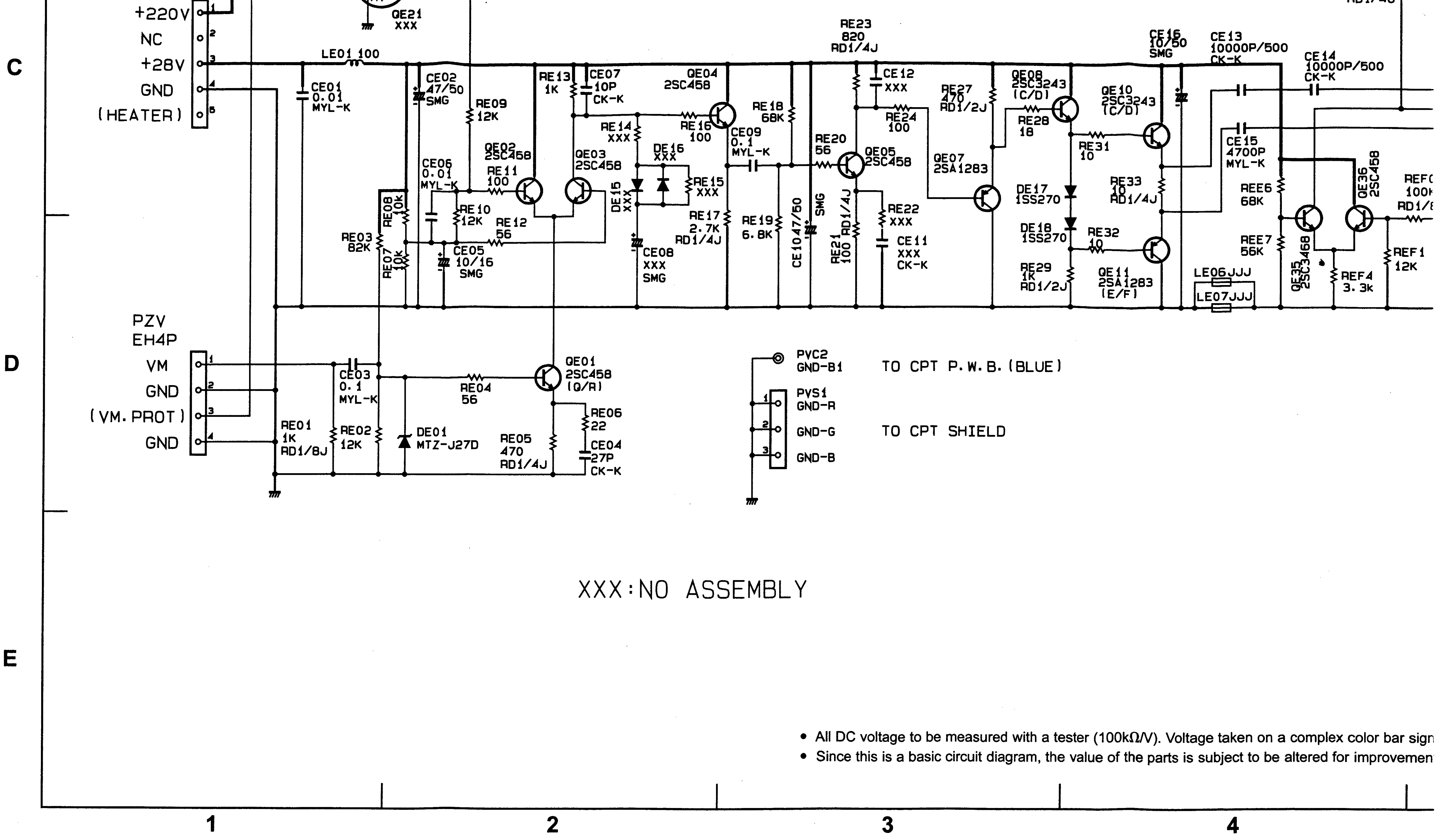

QS02
2SA1037K
RSA8
1K
QS04
2SA1037K
CS75
47/16
CE-M
LFE/SW
BUFFER
RSA6
39K
RSA4
1K
RSX4
100
QS03
2SC2412K
RSA9
1K
RSC2 220
RSC3
220
CS74
10/16
CE-M
RSA7
10K
RSC1
330
10/16
CE-M
CS73
QS05
2SC2412K
RSC6 1K
DS20
1SS254
DS21
MTZ-J2.7A
RSC4
100K
RSC7
1K
RSC5
100K
DS22
1SS254
DS23
MTZ-J2.7A
QS06
2SC2412K
LS05
100
CS79
47/16
CE-M
LS06
100
CS81
100/16
CE-M
RSF1
220
CS78
10/16
CE-M
RSF6
220
QS13
2SC2412K
CS83
10/16
CE-M
RSF7
1K
CS82
10/16
CE-M
RSF8
1K
DS33
1SS254
QS14
2SC2412K
RSF9
1K
DS30
MTZJ2.7A
DS34
1SS254
RSF2 100K
QS12
2SC2412K
RSF3
100K
LFE/SW
RSH9
100K
RSX1 100
RSX2 100
CENTER
RSJ1 100
LFE/SW
RSJ2 100
RL
RSJ4 100
RR
RSJ3 100
FL
FR
GND
CENTER
GND
(LFE/SW)
GND
RL
RR
GND
PAS2
PH10P
RSJ9 1K
RSJ7 1K
RSJ8 1K
RSJ6 1K
RSJ5 1K
F SP OFF
C SP OFF
R SP OFF
VMUTE2
MUTE2
GND
PAS1
PH6P
DS43
DS35
DS36
DS37
DS38
DS39
DS40
DS41
DS42
DS44
DS45
MTZJ15B
AGND
AGND
A+28V
A+28V
A+21V
A+21V
PSP1
XA5P
REARL
AGND
REARR
AGND
PSP2
XA4P
REARL
REARR
AGND
AGND
JS02
TV/Room5/dp8x-sur/surround1
C
D
E
3
4
5
6

XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

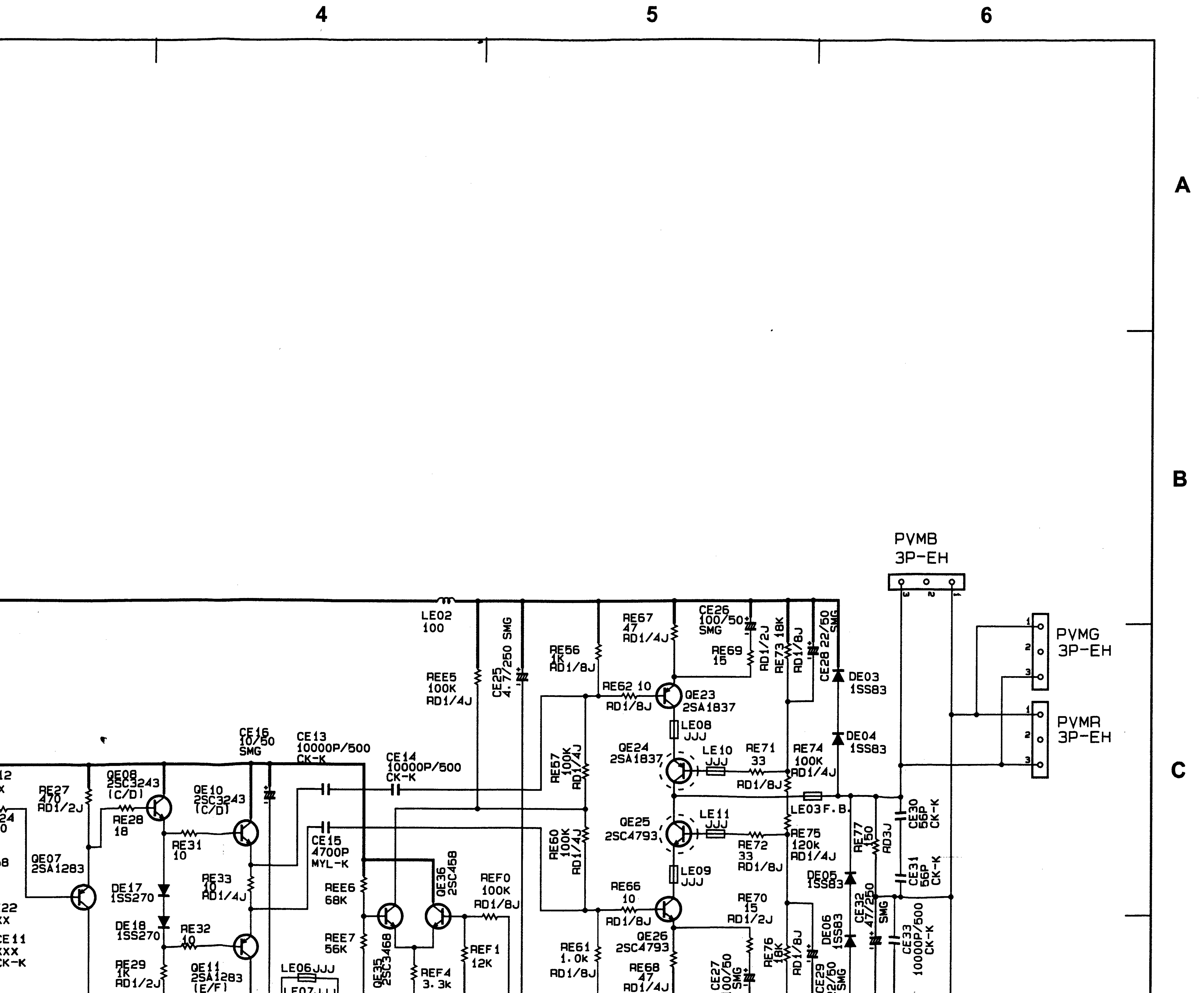
DP86 SURROUND P.W.B. 2/2


1
2
3
4
A
B
C
PDV
XXX
+140V
KE01
JUMP
QE20
XXX
CE22
XXX
RE42
JJJ
RE49
XXX
RE50
470
RS2J
RE52
18
RD1/8J
RE51
1K
RE53
100
QE22
2SA1371
(E/F)
RE54
100
RE47
XXX
RE48
XXX
CE23
XXX
RE55
100K
CE24
10/50
SMG
DE02
MTZ-J20D
RE46
XXX
QE21
XXX
PCV
EH5P
+220V
NC
+28V
GND
(HEATER)
1
2
3
4
5
LE01 100
CE01
0.01
MYL-K
CE02
47/50
SMG
RE09
12K
CE06
0.01
MYL-K
RE08
10K
RE03
82K
RE07
10K
CE05
10/16
SMG
RE10
12K
RE11
100
QE02
2SC458
RE12
56
RE13
1K
CE07
10P
CK-K
QE03
2SC458
QE04
2SC458
RE14
XXX
DE16
XXX
DE15
XXX
RE15
XXX
RE16
100
CE08
XXX
SMG
RE17
2.7K
RD1/4J
CE09
0.1
MYL-K
RE18
68K
RE19
6.8K
CE10
47/50
SMG
RE23
820
RD1/4J
CE12
XXX
RE24
100
RE20
56
QE05
2SC458
RE21
100
RD1/4J
RE22
XXX
CE11
XXX
CK-K
RE27
470
RD1/2J
QE08
2SC3243
(C/D)
RE28
18
QE07
2SA1283
DE17
1SS270
DE18
1SS270
RE29
1K
RD1/2J
RE31
10
QE10
2SC3243
(C/D)
CE16
10/50
SMG
RE33
10
RD1/4J
RE32
10
QE11
2SA1283
(E/F)
CE13
10000P/500
CK-K
CE14
10000P/500
CK-K
CE15
4700P
MYL-K
LE06JJJ
LE07JJJ
LE02
100
REE5
100K
RD1/4J
CE25
4.7/250 SMG
REE6
68K
REE7
56K
QE35
2SC3468
QE36
2SC458
REF4
3.3K
REF0
100K
RD1/8J
REF1
12K

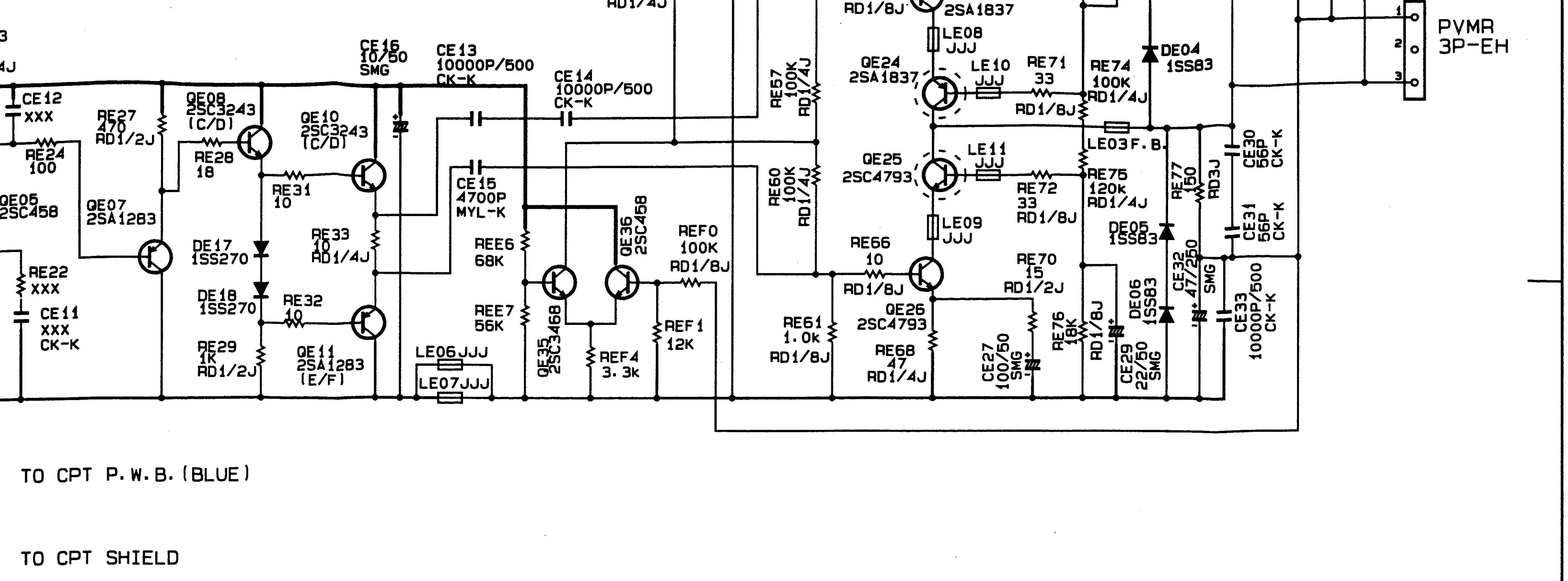

C
D
E
1
2
3
4
+220V
NC
+28V
GND
(HEATER)
QE21
XXX
LE01 100
CE01
0.01
MYL-K
CE02
47/50
SMG
RE09
12K
RE13
1K
CE07
10P
CK-K
QE04
2SC458
RE23
820
RD1/4J
CE12
XXX
RE27
470
RD1/2J
QE08
2SC3243
(C/D)
QE10
2SC3243
(C/D)
CE16
10/50
SMG
CE13
10000P/500
CK-K
CE14
10000P/500
CK-K
RE14
XXX
RE16
100
RE18
68K
RE24
100
RE28
18
RE31
10
CE15
4700P
MYL-K
QE02
2SC458
QE03
2SC458
DE16
XXX
CE09
0.1
MYL-K
RE20
56
QE05
2SC458
QE07
2SA1283
CE06
0.01
MYL-K
RE11
100
DE15
XXX
RE15
XXX
RE33
10
RD1/4J
REE6
68K
QE36
2SC458
REF
100K
RD1/
RE08
10k
RE10
12K
RE12
56
RE17
2.7K
RD1/4J
RE19
6.8K
CE10 47/50
SMG
RE21
100
RD1/4J
RE22
XXX
DE17
1SS270
DE18
1SS270
RE32
10
REE7
56K
QE35
2SC3468
REF4
3.3k
REF1
12K
RE03
82K
RE07
10k
CE05
10/16
SMG
CE08
XXX
SMG
CE11
XXX
CK-K
RE29
1K
RD1/2J
QE11
2SA1283
(E/F)
LE06JJJ
LE07JJJ
PZV
EH4P
VM
GND
(VM.PROT)
GND
CE03
0.1
MYL-K
RE04
56
QE01
2SC458
(Q/R)
RE06
22
CE04
27P
CK-K
RE01
1K
RD1/8J
RE02
12K
DE01
MTZ-J27D
RE05
470
RD1/4J
PVC2
GND-B1
TO CPT P.W.B.(BLUE)
PVS1
GND-R
GND-G
GND-B
TO CPT SHIELD
XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sign
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemen

Manual. Don't degrade the safety of the receiver through improper servicing.



4
5
6
A
B
C
PVMB
3P-EH
PVMG
3P-EH
PVMR
3P-EH
LE02
100
REE5
100K
RD1/4J
CE25
4.7/250 SMG
RE56
1K
RD1/8J
RE67
47
RD1/4J
CE26
100/50
SMG
RE69
15
RD1/2J
RE73 18K
RD1/8J
CE28 22/50
SMG
DE03
1SS83
DE04
1SS83
RE62 10
RD1/8J
QE23
2SA1837
LE08
JJJ
QE24
2SA1837
LE10
JJJ
RE71
33
RD1/8J
RE74
100K
RD1/4J
LE03 F.B.
CE30
56P
CK-K
CE31
56P
CK-K
QE25
2SC4793
LE11
JJJ
RE72
33
RD1/8J
RE75
120k
RD1/4J
RE77
150
RD3J
DE05
1SS83
LE09
JJJ
RE57
100K
RD1/4J
RE60
100K
RD1/4J
RE66
10
RD1/8J
QE26
2SC4793
RE70
15
RD1/2J
RE61
1.0k
RD1/8J
RE68
47
RD1/4J
CE27
100/50
SMG
RE76
18K
RD1/8J
CE29
22/50
SMG
DE06
1SS83
CE32
47/250
SMG
CE33
10000P/500
CK-K
CE16
10/50
SMG
CE13
10000P/500
CK-K
CE14
10000P/500
CK-K
CE15
4700P
MYL-K
QE08
2SC3243
(C/D)
RE27
470
RD1/2J
RE28
18
QE10
2SC3243
(C/D)
RE31
10
QE07
2SA1283
DE17
1SS270
DE18
1SS270
RE33
10
RD1/4J
RE32
10
QE11
2SA1283
(E/F)
RE29
1K
RD1/2J
REE6
68K
REE7
56K
QE35
2SC3468
QE36
2SC458
REF0
100K
RD1/8J
REF1
12K
REF4
3.3k
LE06 JJJ
LE07 JJJ
12
X
24
0
8
22
X
CE11
XXX
CK-K



RD1/4J
RD1/8J
2SA1837
LE08
JJJ
PVMR
3P-EH
CE16
10/50
SMG
CE13
10000P/500
CK-K
CE14
10000P/500
CK-K
QE24
2SA1837
LE10
JJJ
RE71
33
RE74
100K
RD1/4J
DE04
1SS83
RE57
100K
RD1/4J
RD1/8J
CE12
XXX
RE27
470
RD1/2J
QE08
2SC3243
(C/D)
RE28
18
RE24
100
QE10
2SC3243
(C/D)
LE03F.B.
CE30
56P
CK-K
QE25
2SC4793
LE11
JJJ
RE72
33
RD1/8J
RE75
120k
RD1/4J
RE77
150
RD3J
RE60
100K
RD1/4J
QE05
2SC458
QE07
2SA1283
RE31
10
CE15
4700P
MYL-K
QE36
2SC458
RE33
10
RD1/4J
REE6
68K
REF0
100K
RD1/8J
LE09
JJJ
DE05
1SS83
CE31
56P
CK-K
RE22
XXX
DE17
1SS270
RE66
10
RD1/8J
RE70
15
RD1/2J
CE32
47/250
SMG
DE18
1SS270
RE32
10
REE7
56K
QE35
2SC3468
REF1
12K
QE26
2SC4793
RE76
18K
RD1/8J
DE06
1SS83
CE33
10000P/500
CK-K
CE11
XXX
CK-K
RE61
1.0k
RD1/8J
RE29
1K
RD1/2J
QE11
2SA1283
(E/F)
LE06JJJ
LE07JJJ
REF4
3.3k
RE68
47
RD1/4J
CE27
100/50
SMG
CE29
22/50
SMG
TO CPT P.W.B. (BLUE)
TO CPT SHIELD

oltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.

is is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 VM P.W.B.

C

D

E

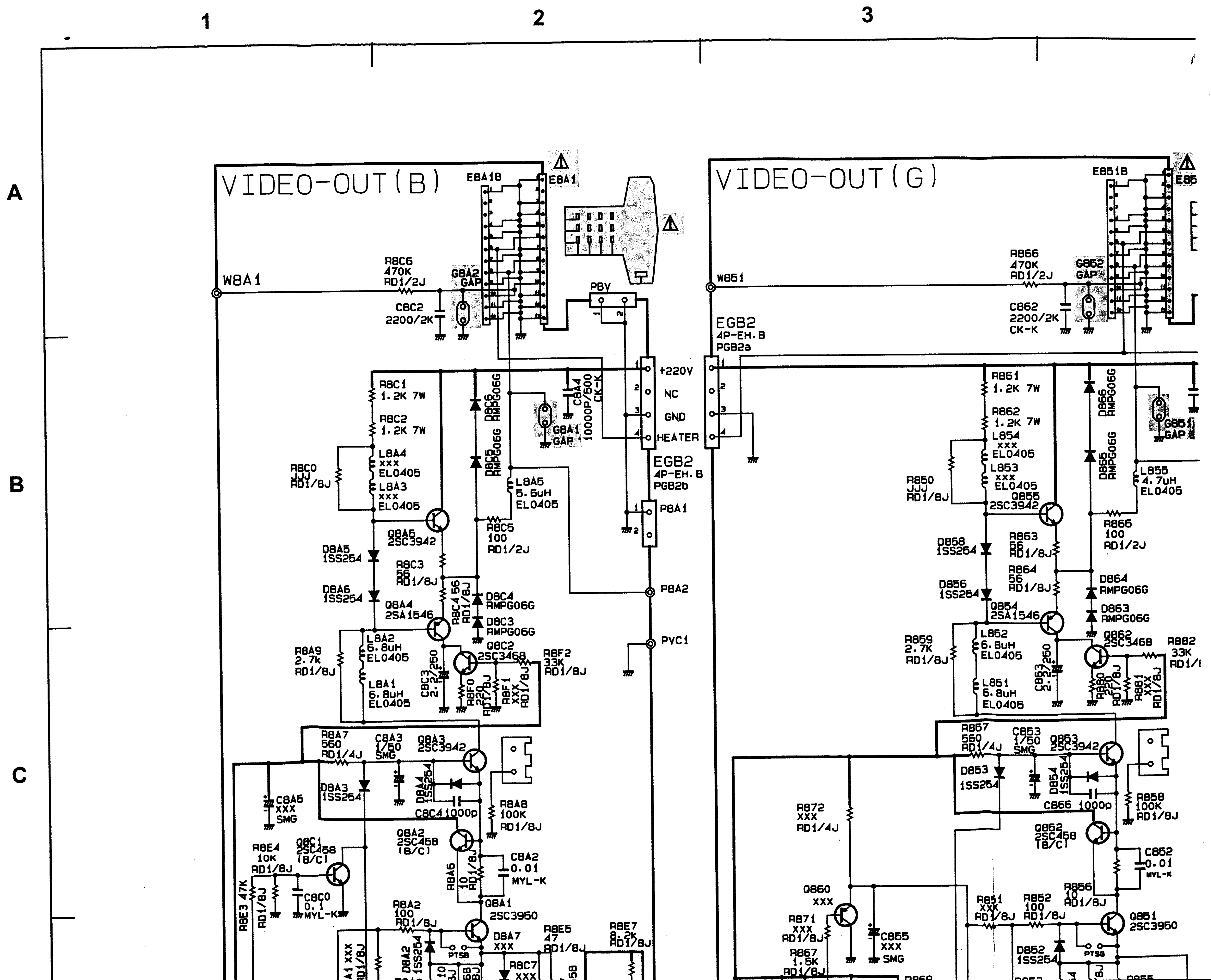
3

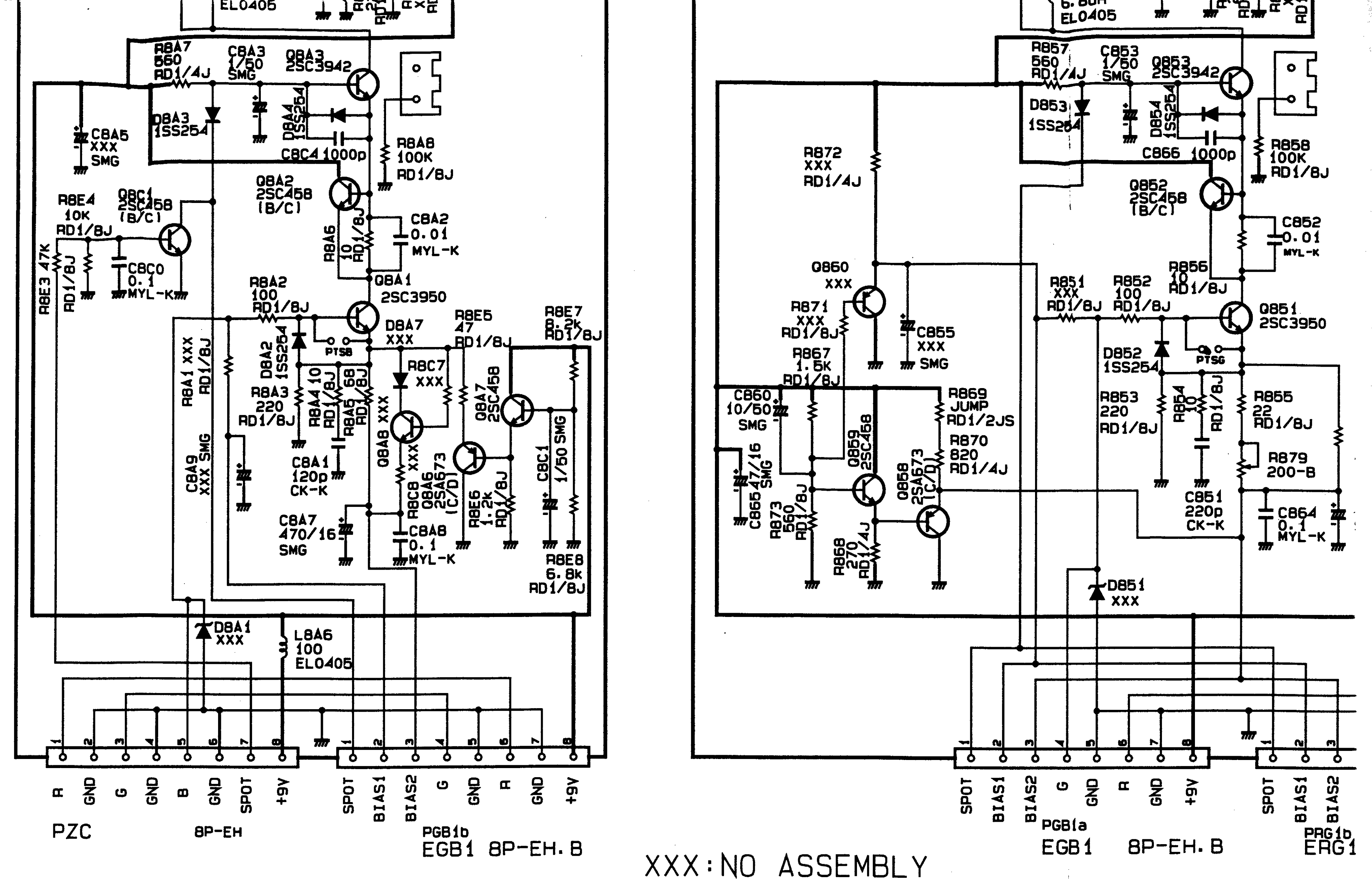
4

5

6

safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

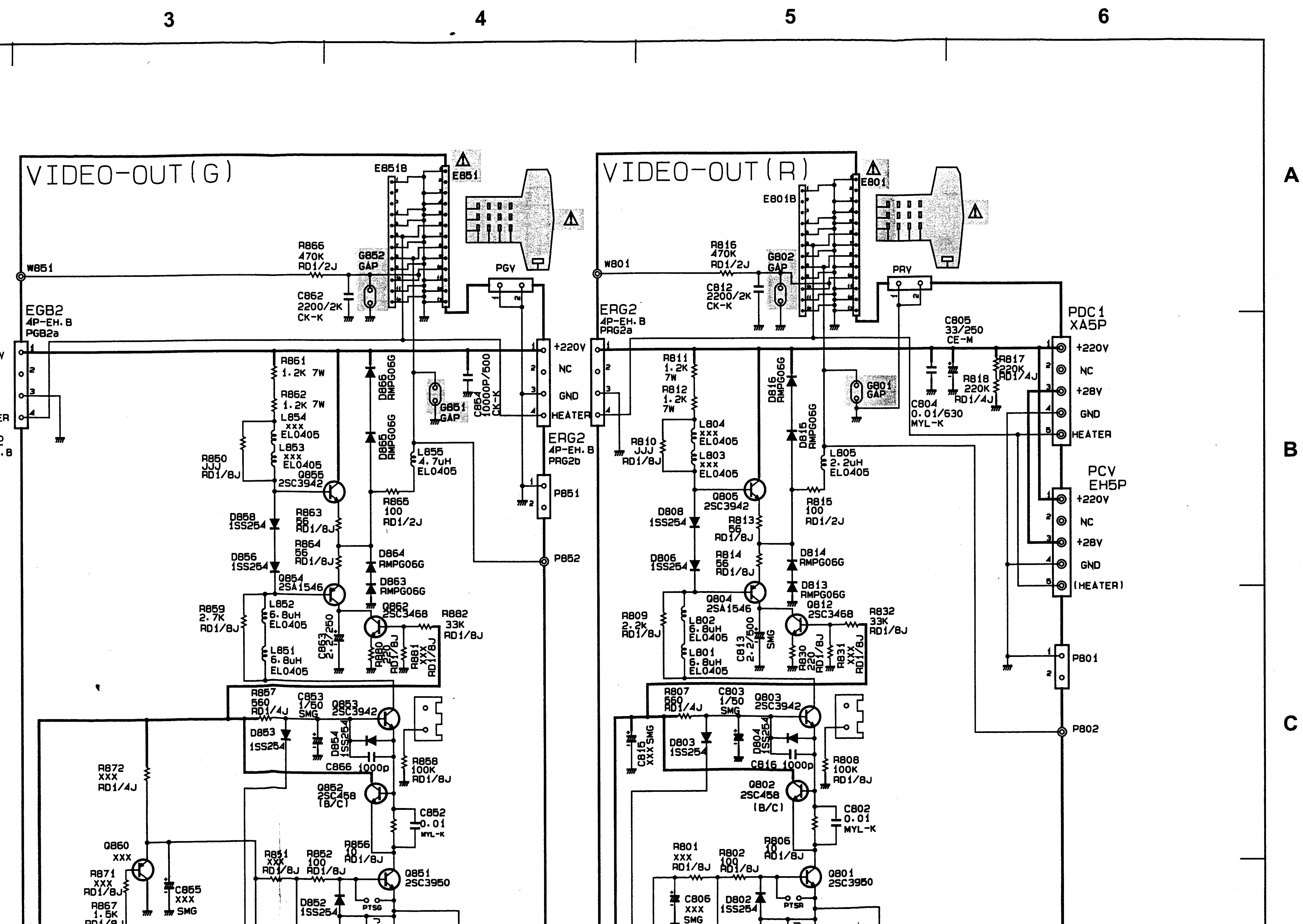

1
2
3
A
B
C
VIDEO-OUT(B)
VIDEO-OUT(G)
E8A1B
E8A1
E851B
W8A1
W851
R8C6 470K RD1/2J
C8C2 2200/2K
G8A2 GAP
G852 GAP
P8V
EGB2 4P-EH.B PGB2a
EGB2 4P-EH.B PGB2b
+220V
NC
GND
HEATER
P8A1
P8A2
PVC1
C8A4 10000P/500 CK-K
G8A1 GAP
G851 GAP
R8C1 1.2K 7W
R8C2 1.2K 7W
L8A4 xxx EL0405
L8A3 xxx EL0405
R8C0 JJJ RD1/8J
D8C6 RMPG06G
D8C5 RMPG06G
L8A5 5.6uH EL0405
R8C5 100 RD1/2J
Q8A5 2SC3942
D8A5 1SS254
D8A6 1SS254
R8C3 56 RD1/8J
R8C4 56 RD1/8J
D8C4 RMPG06G
D8C3 RMPG06G
Q8A4 2SA1546
Q8C2 2SC3468
R8F2 33K RD1/8J
R8A9 2.7k RD1/8J
L8A2 6.8uH EL0405
L8A1 6.8uH EL0405
C8C3 2.2/250
R8F0 220 RD1/8J
R8F1 XXX RD1/8J
R8A7 560 RD1/4J
C8A3 1/50 SMG
Q8A3 2SC3942
D8A3 1SS254
D8A4 1SS254
C8C4 1000p
R8A8 100K RD1/8J
C8A5 XXX SMG
Q8A2 2SC458 (B/C)
C8A2 0.01 MYL-K
R8A6 10 RD1/8J
R8E4 10K RD1/8J
Q8C1 2SC458 (B/C)
C8C0 0.1 MYL-K
R8E3 47K RD1/8J
Q8A1 2SC3950
R8A2 100 RD1/8J
D8A2 1SS254
PTS8
D8A7 XXX
R8E5 47 RD1/8J
R8E7 8.2K RD1/8J
R8C7 XXX
R866 470K RD1/2J
C862 2200/2K CK-K
R861 1.2K 7W
R862 1.2K 7W
L854 xxx EL0405
L853 xxx EL0405
R850 JJJ RD1/8J
Q855 2SC3942
D866 RMPG06G
D865 RMPG06G
L855 4.7uH EL0405
R865 100 RD1/2J
D858 1SS254
D856 1SS254
R863 56 RD1/8J
R864 56 RD1/8J
D864 RMPG06G
D863 RMPG06G
Q854 2SA1546
Q862 2SC3468
R882 33K
R859 2.7K RD1/8J
L852 6.8uH EL0405
L851 6.8uH EL0405
C863 2.2/250
R880 220 RD1/8J
R881 XXX RD1/8J
R857 560 RD1/4J
C853 1/50 SMG
Q853 2SC3942
D853 1SS254
D854 1SS254
C866 1000p
R858 100K RD1/8J
R872 XXX RD1/4J
Q852 2SC458 (B/C)
C852 0.01 MYL-K
Q860 XXX
R871 XXX RD1/8J
R867 1.5K RD1/8J
C855 XXX SMG
R851 XXX RD1/8J
R852 100 RD1/8J
R856 10 RD1/8J
Q851 2SC3950
D852 1SS254
PTS6

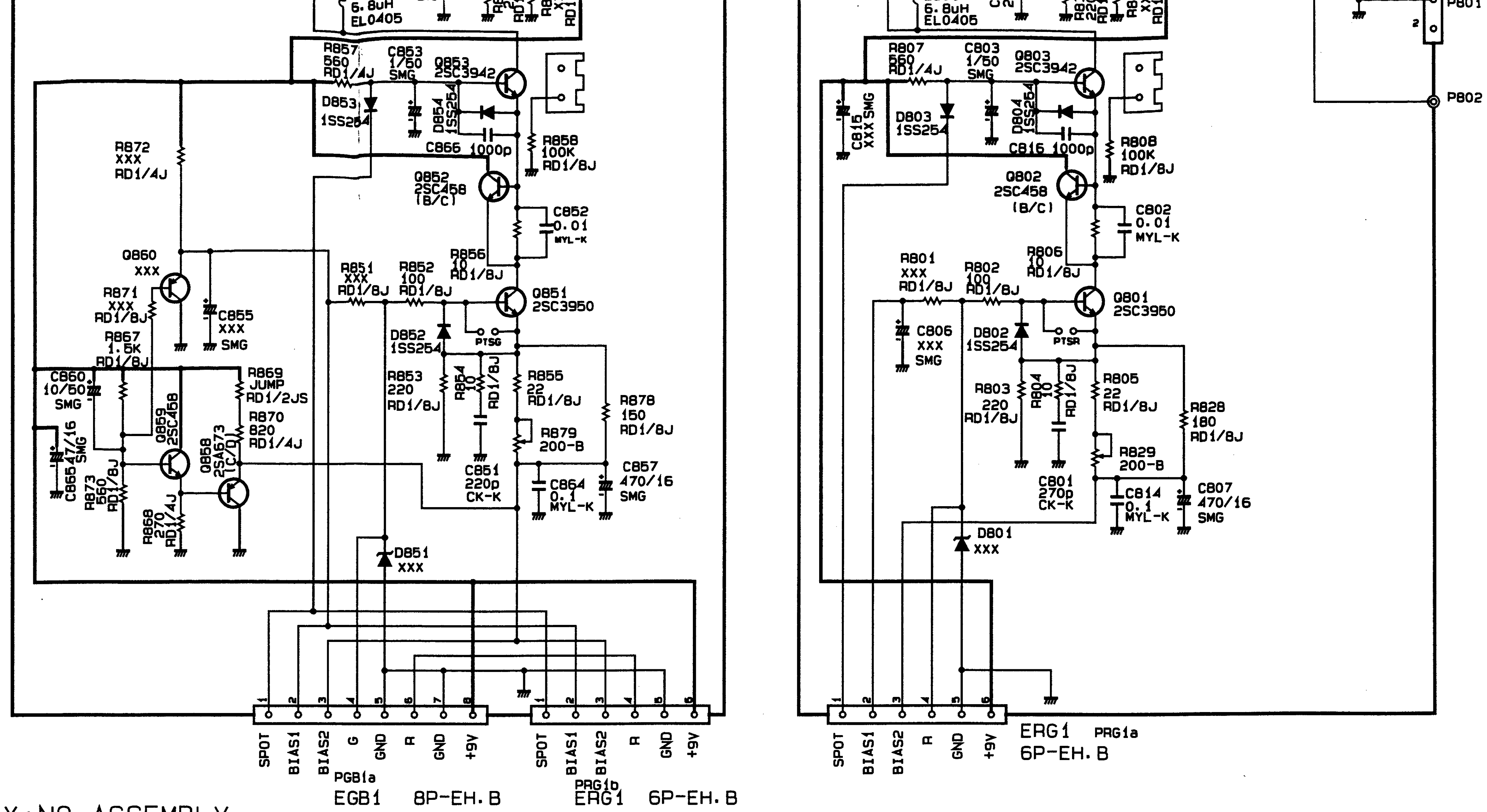

C
D
E
EL0405
R8A7 560 RD1/4J
C8A3 1/50 SMG
Q8A3 2SC3942
D8A3 1SS254
D8A4 1SS254
C8A5 XXX SMG
C8C4 1000p
R8A8 100K RD1/8J
Q8A2 2SC458 (B/C)
R8E4 10K RD1/8J
Q8C1 2SC458 (B/C)
R8A6 10 RD1/8J
C8A2 0.01 MYL-K
R8E3 47K RD1/8J
C8C0 0.1 MYL-K
Q8A1 2SC3950
R8A2 100 RD1/8J
D8A2 1SS254
PTS8
D8A7 XXX
R8E5 47 RD1/8J
R8E7 8.2k RD1/8J
R8A1 XXX RD1/8J
R8A3 220 RD1/8J
R8A4 10 RD1/8J
R8A5 68 RD1/8J
R8C7 XXX
Q8A7 2SC458
Q8A8 XXX
C8A9 XXX SMG
C8A1 120p CK-K
R8C8 XXX
Q8A6 2SA673 (C/D)
R8E6 1.2k RD1/8J
C8C1 1/50 SMG
C8A7 470/16 SMG
C8A8 0.1 MYL-K
R8E8 6.8k RD1/8J
D8A1 XXX
L8A6 100 EL0405
R GND G GND B GND SPOT +9V
PZC 8P-EH
SPOT BIAS1 BIAS2 G GND R GND +9V
PGB1b
EGB1 8P-EH.B
6.8uH EL0405
R857 560 RD1/4J
C853 1/50 SMG
Q853 2SC3942
D853 1SS254
D854 1SS254
R858 100K RD1/8J
C866 1000p
R872 XXX RD1/4J
Q852 2SC458 (B/C)
C852 0.01 MYL-K
Q860 XXX
R871 XXX RD1/8J
C855 XXX SMG
R867 1.5K RD1/8J
R851 XXX RD1/8J
R852 100 RD1/8J
R856 10 RD1/8J
Q851 2SC3950
D852 1SS254
PTS6
C860 10/50 SMG
Q859 2SC458
R869 JUMP RD1/2JS
R870 820 RD1/4J
Q858 2SA673 (C/D)
R853 220 RD1/8J
R854 10 RD1/8J
R855 22 RD1/8J
R879 200-B
C856 47/16 SMG
R873 560 RD1/8J
R868 270 RD1/4J
C851 220p CK-K
C864 0.1 MYL-K
D851 XXX
SPOT BIAS1 BIAS2 G GND R GND +9V
PGB1a
EGB1 8P-EH.B
SPOT BIAS1 BIAS2
PRG1b
ERG1
1
2
3

XXX:NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage t
- Since this is a basic circuit diagram, the value of the parts is sub

CONTROL


3
4
5
6
A
B
C
VIDEO-OUT(G)
VIDEO-OUT(R)
E851B
E851
E801B
E801
W851
W801
R866 470K RD1/2J
R816 470K RD1/2J
G852 GAP
G802 GAP
G851 GAP
G801 GAP
C862 2200/2K CK-K
C812 2200/2K CK-K
PGV
PRV
EGB2 4P-EH.B PGB2a
ERG2 4P-EH.B PRG2a
ERG2 4P-EH.B PRG2b
+220V
NC
GND
HEATER
+28V
(HEATER)
PDC1 XA5P
PCV EH5P
P851
P852
P801
P802
C854 10000P/500 CK-K
C805 33/250 CE-M
C804 0.01/630 MYL-K
R817 220K RD1/4J
R818 220K RD1/4J
R861 1.2K 7W
R862 1.2K 7W
R811 1.2K 7W
R812 1.2K 7W
L854 xxx EL0405
L853 xxx EL0405
L804 xxx EL0405
L803 xxx EL0405
L855 4.7uH EL0405
L805 2.2uH EL0405
R850 JJJ RD1/8J
R810 JJJ RD1/8J
Q855 2SC3942
Q805 2SC3942
D866 RMPG06G
D865 RMPG06G
D816 RMPG06G
D815 RMPG06G
R865 100 RD1/2J
R815 100 RD1/2J
D858 1SS254
D856 1SS254
D808 1SS254
D806 1SS254
R863 56 RD1/8J
R864 56 RD1/8J
R813 56 RD1/8J
R814 56 RD1/8J
D864 RMPG06G
D863 RMPG06G
D814 RMPG06G
D813 RMPG06G
Q854 2SA1546
Q804 2SA1546
Q862 2SC3468
Q812 2SC3468
R882 33K RD1/8J
R832 33K RD1/8J
R859 2.7K RD1/8J
R809 2.2K RD1/8J
L852 6.8uH EL0405
L851 6.8uH EL0405
L802 6.8uH EL0405
L801 6.8uH EL0405
C863 2.2/250
C813 2.2/500 SMG
R880 RD1/8J
R881 XXX RD1/8J
R830 220 RD1/8J
R831 XXX RD1/8J
R857 560 RD1/4J
R807 560 RD1/4J
C853 1/50 SMG
C803 1/50 SMG
Q853 2SC3942
Q803 2SC3942
D853 1SS254
D803 1SS254
D854 1SS254
D804 1SS254
C815 XXX SMG
C866 1000p
C816 1000p
R858 100K RD1/8J
R808 100K RD1/8J
R872 XXX RD1/4J
Q852 2SC458 (B/C)
Q802 2SC458 (B/C)
C852 0.01 MYL-K
C802 0.01 MYL-K
Q860 XXX
R871 XXX RD1/8J
R867 1.5K RD1/8J
C855 XXX SMG
R851 XXX RD1/8J
R852 100 RD1/8J
R856 10 RD1/8J
R801 XXX RD1/8J
R802 100 RD1/8J
R806 10 RD1/8J
Q851 2SC3950
Q801 2SC3950
D852 1SS254
D802 1SS254
C806 XXX SMG
PTSG
PTSR

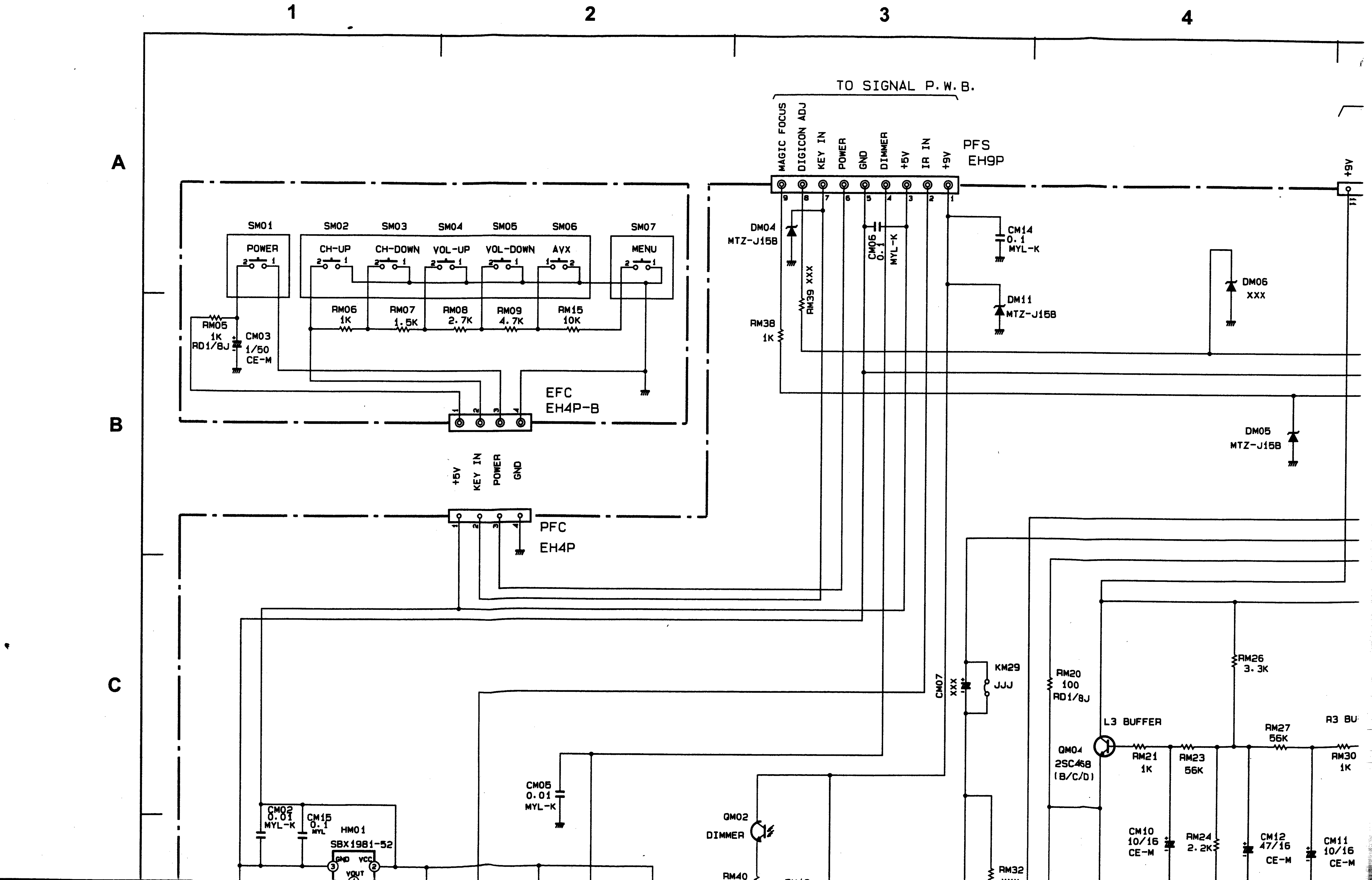

6.8uH
EL0405
R857 560 RD1/4J
C853 1/50 SMG
Q853 2SC3942
D853 1SS254
D854 1SS254
C866 1000p
R858 100K RD1/8J
R872 XXX RD1/4J
Q852 2SC458 (B/C)
C852 0.01 MYL-K
Q860 XXX
R856 10 RD1/8J
R851 XXX RD1/8J
R852 100 RD1/8J
Q851 2SC3950
R871 XXX RD1/8J
C855 XXX SMG
R867 1.5K RD1/8J
D852 1SS254
PTSG
C860 10/50 SMG
R869 JUMP RD1/2JS
R853 220 RD1/8J
R854 10 RD1/8J
R855 22 RD1/8J
R878 150 RD1/8J
Q859 2SC458
R870 820 RD1/4J
R879 200-B
C856 47/16 SMG
Q858 2SA673 (C/D)
C851 220p CK-K
C864 0.1 MYL-K
C857 470/16 SMG
R873 560 RD1/8J
R868 270 RD1/4J
D851 XXX
SPOT
BIAS1
BIAS2
G
GND
R
GND
+9V
PGB1a
EGB1 8P-EH.B
SPOT
BIAS1
BIAS2
R
GND
+9V
PRG1b
ERG1 6P-EH.B
R807 560 RD1/4J
C803 1/50 SMG
Q803 2SC3942
C815 XXX SMG
D803 1SS254
D804 1SS254
C816 1000p
R808 100K RD1/8J
Q802 2SC458 (B/C)
C802 0.01 MYL-K
R801 XXX RD1/8J
R802 100 RD1/8J
R806 10 RD1/8J
Q801 2SC3950
C806 XXX SMG
D802 1SS254
PTSR
R803 220 RD1/8J
R804 10 RD1/8J
R805 22 RD1/8J
R828 180 RD1/8J
R829 200-B
C801 270p CK-K
C814 0.1 MYL-K
C807 470/16 SMG
D801 XXX
SPOT
BIAS1
BIAS2
R
GND
+9V
ERG1 PRG1a
6P-EH.B
P801
P802

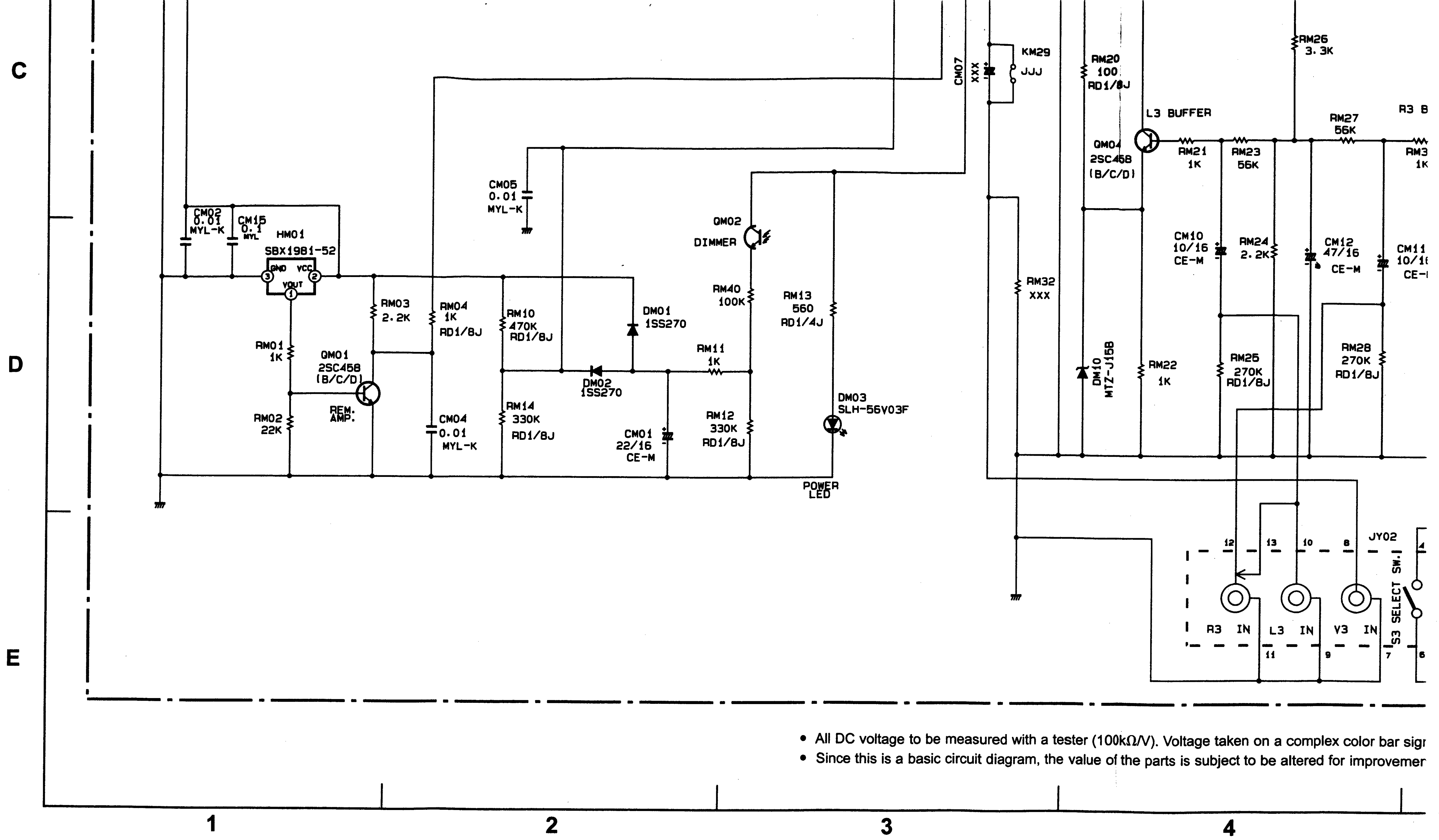
XXX : NO ASSEMBLY

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 CPT P.W.B.

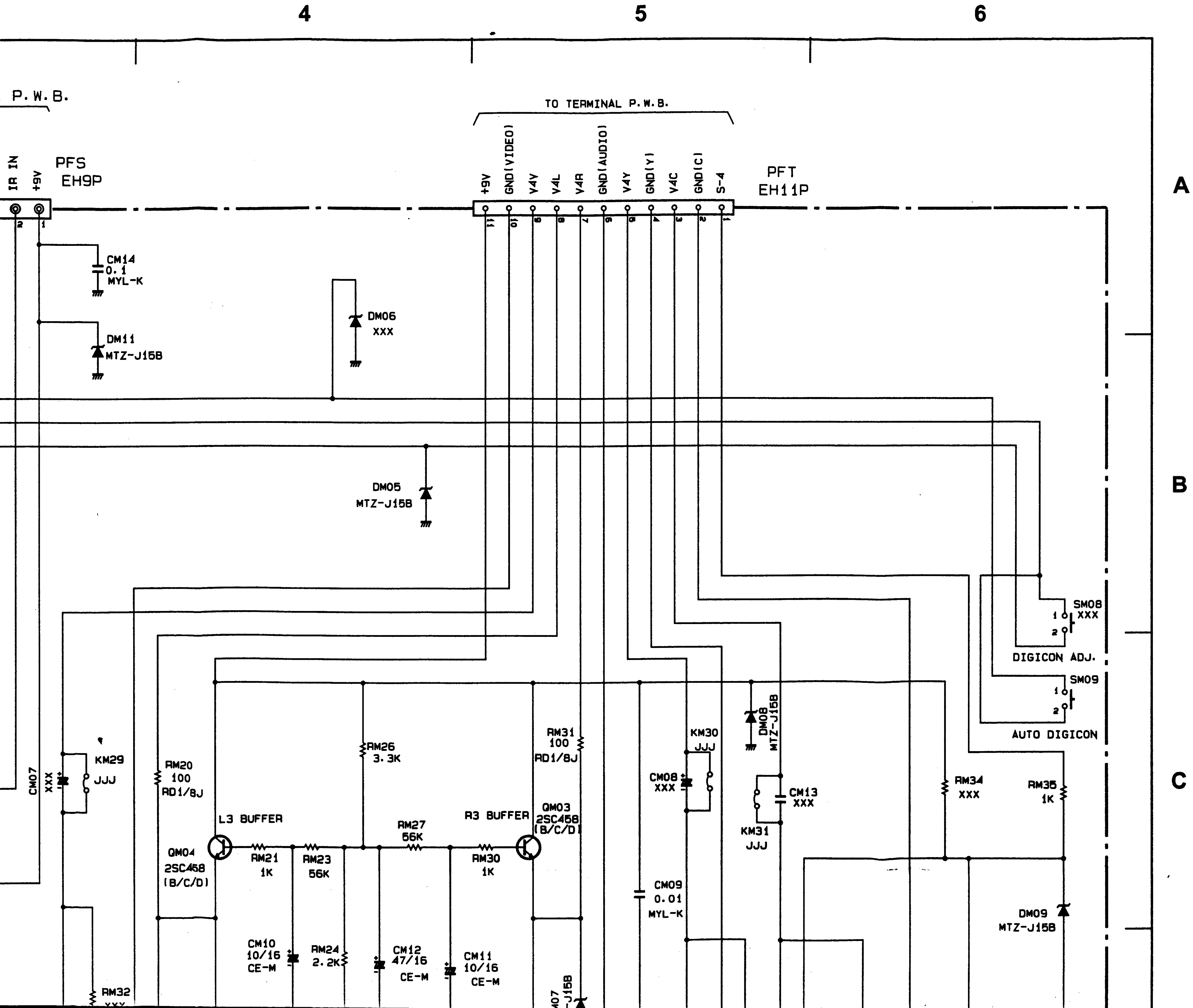
CONTROL

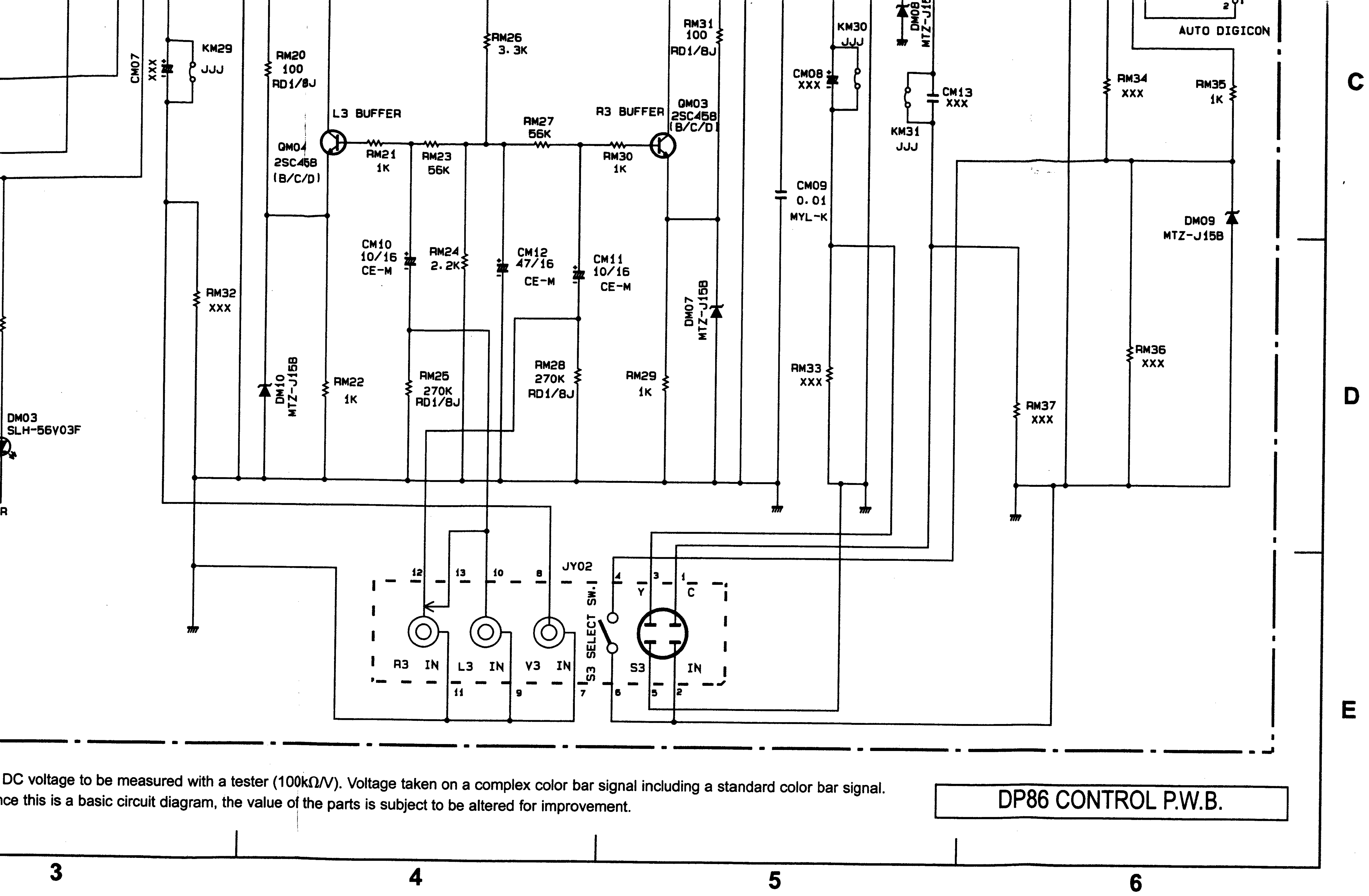

1
2
3
4
A
B
C
TO SIGNAL P.W.B.
MAGIC FOCUS
DIGICON ADJ
KEY IN
POWER
GND
DIMMER
+5V
IR IN
+9V
PFS
EH9P
SM01
POWER
SM02
CH-UP
SM03
CH-DOWN
SM04
VOL-UP
SM05
VOL-DOWN
SM06
AVX
SM07
MENU
RM05
1K
RD1/8J
CM03
1/50
CE-M
RM06
1K
RM07
1.5K
RM08
2.7K
RM09
4.7K
RM15
10K
EFC
EH4P-B
+5V
KEY IN
POWER
GND
PFC
EH4P
DM04
MTZ-J15B
RM39 XXX
RM38
1K
CM06
0.1
MYL-K
CM14
0.1
MYL-K
DM11
MTZ-J15B
DM06
XXX
DM05
MTZ-J15B
+9V
CM07
XXX
KM29
JJJ
RM20
100
RD1/8J
RM26
3.3K
L3 BUFFER
QM04
2SC458
(B/C/D)
RM21
1K
RM23
56K
RM27
56K
R3 BU
RM30
1K
CM10
10/16
CE-M
RM24
2.2K
CM12
47/16
CE-M
CM11
10/16
CE-M
RM32
CM05
0.01
MYL-K
QM02
DIMMER
RM40
CM02
0.01
MYL-K
CM15
0.1
MYL
HM01
SBX1981-52
GND
VCC
VOUT


C
D
E
1
2
3
4
CM02
0.01
MYL-K
CM15
0.1
MYL
HM01
SBX1981-52
GND
VCC
VOUT
③
②
①
RM01
1K
RM02
22K
QM01
2SC458
(B/C/D)
REM.
AMP.
RM03
2.2K
RM04
1K
RD1/8J
CM04
0.01
MYL-K
CM05
0.01
MYL-K
RM10
470K
RD1/8J
RM14
330K
RD1/8J
DM01
1SS270
DM02
1SS270
CM01
22/16
CE-M
RM11
1K
RM12
330K
RD1/8J
QM02
DIMMER
RM40
100K
RM13
560
RD1/4J
DM03
SLH-56Y03F
POWER
LED
CM07
XXX
KM29
JJJ
RM20
100
RD1/8J
QM04
2SC458
(B/C/D)
L3 BUFFER
RM21
1K
RM23
56K
RM26
3.3K
RM27
56K
R3 B
RM3
1K
CM10
10/16
CE-M
RM24
2.2K
CM12
47/16
CE-M
CM11
10/1
CE-
RM32
XXX
DM10
MTZ-J15B
RM22
1K
RM25
270K
RD1/8J
RM28
270K
RD1/8J
JY02
12
13
10
8
4
11
9
7
6
R3 IN
L3 IN
V3 IN
S3 SELECT SW.

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar sigr
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvemer

Manual. Don't degrade the safety of the receiver through improper servicing.

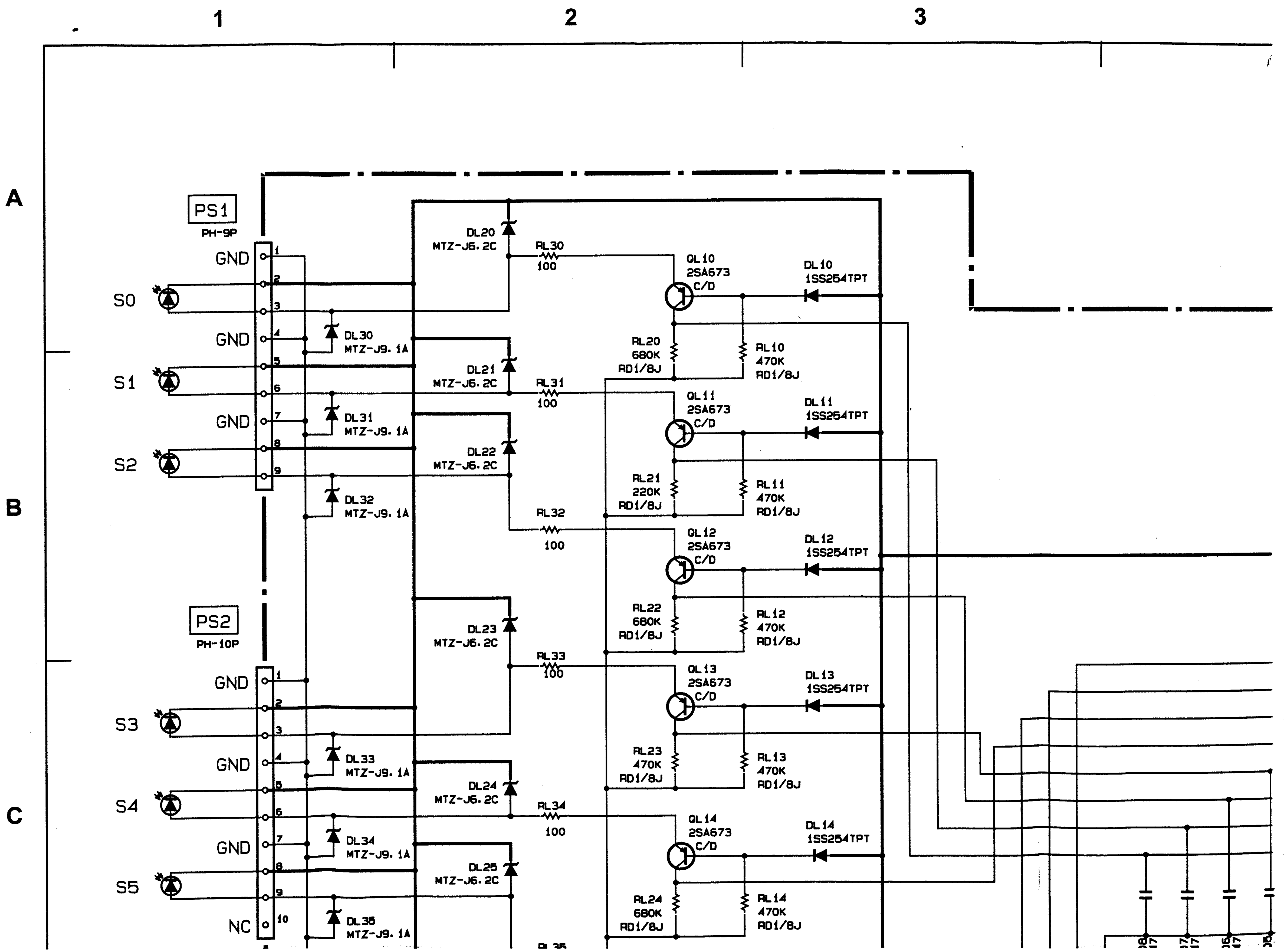

4
5
6
A
B
C
P. W. B.
IR IN
+9V
PFS
EH9P
TO TERMINAL P.W.B.
+9V
GND(VIDEO)
V4V
V4L
V4R
GND(AUDIO)
V4Y
GND(Y)
V4C
GND(C)
S-4
PFT
EH11P
CM14
0.1
MYL-K
DM11
MTZ-J15B
DM06
XXX
DM05
MTZ-J15B
SM08
XXX
DIGICON ADJ.
SM09
AUTO DIGICON
CM07
XXX
KM29
JJJ
RM20
100
RD1/8J
RM26
3.3K
RM31
100
RD1/8J
KM30
JJJ
DM08
MTZ-J15B
CM08
XXX
CM13
XXX
KM31
JJJ
RM34
XXX
RM35
1K
L3 BUFFER
R3 BUFFER
QM03
2SC458
(B/C/D)
QM04
2SC458
(B/C/D)
RM21
1K
RM23
56K
RM27
56K
RM30
1K
CM09
0.01
MYL-K
DM09
MTZ-J15B
CM10
10/16
CE-M
RM24
2.2K
CM12
47/16
CE-M
CM11
10/16
CE-M
RM32
XXX

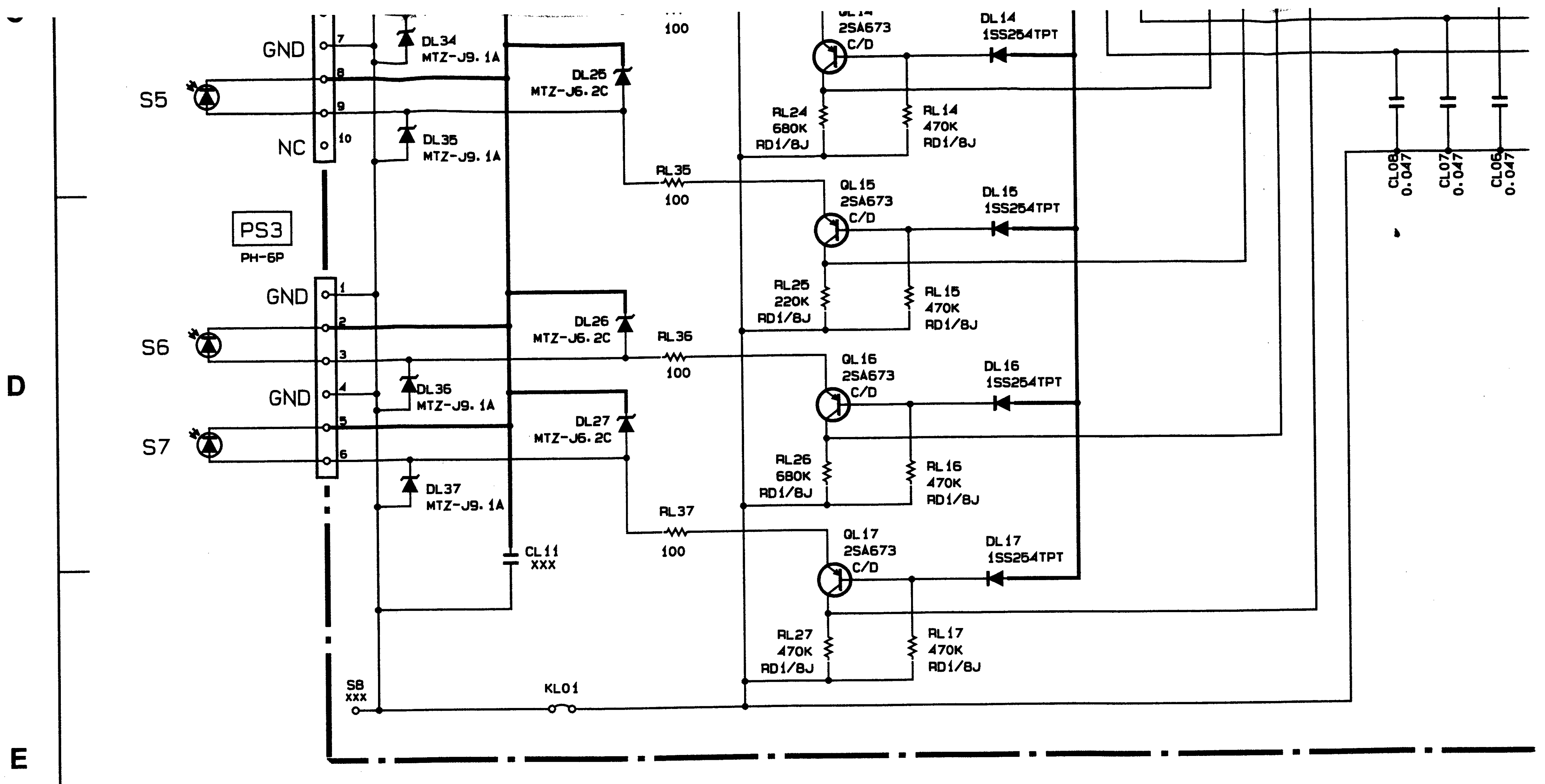

CM07
XXX
KM29
JJJ
RM20
100
RD1/8J
RM26
3.3K
RM31
100
RD1/8J
KM30
JJJ
DM08
MTZ-J15
AUTO DIGICON
CM08
XXX
CM13
XXX
KM31
JJJ
RM34
XXX
RM35
1K
L3 BUFFER
QM04
2SC458
(B/C/D)
RM21
1K
RM23
56K
RM27
56K
R3 BUFFER
QM03
2SC458
(B/C/D)
RM30
1K
CM09
0.01
MYL-K
DM09
MTZ-J15B
CM10
10/16
CE-M
RM24
2.2K
CM12
47/16
CE-M
CM11
10/16
CE-M
RM32
XXX
DM07
MTZ-J15B
RM36
XXX
DM10
MTZ-J15B
RM22
1K
RM25
270K
RD1/8J
RM28
270K
RD1/8J
RM29
1K
RM33
XXX
RM37
XXX
DM03
SLH-56V03F
R
JY02
12
13
10
8
4
3
1
Y
C
S3 SELECT SW.
R3 IN
L3 IN
V3 IN
S3
IN
11
9
7
6
5
2
C
D
E
3
4
5
6

DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
nce this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

DP86 CONTROL P.W.B.

safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

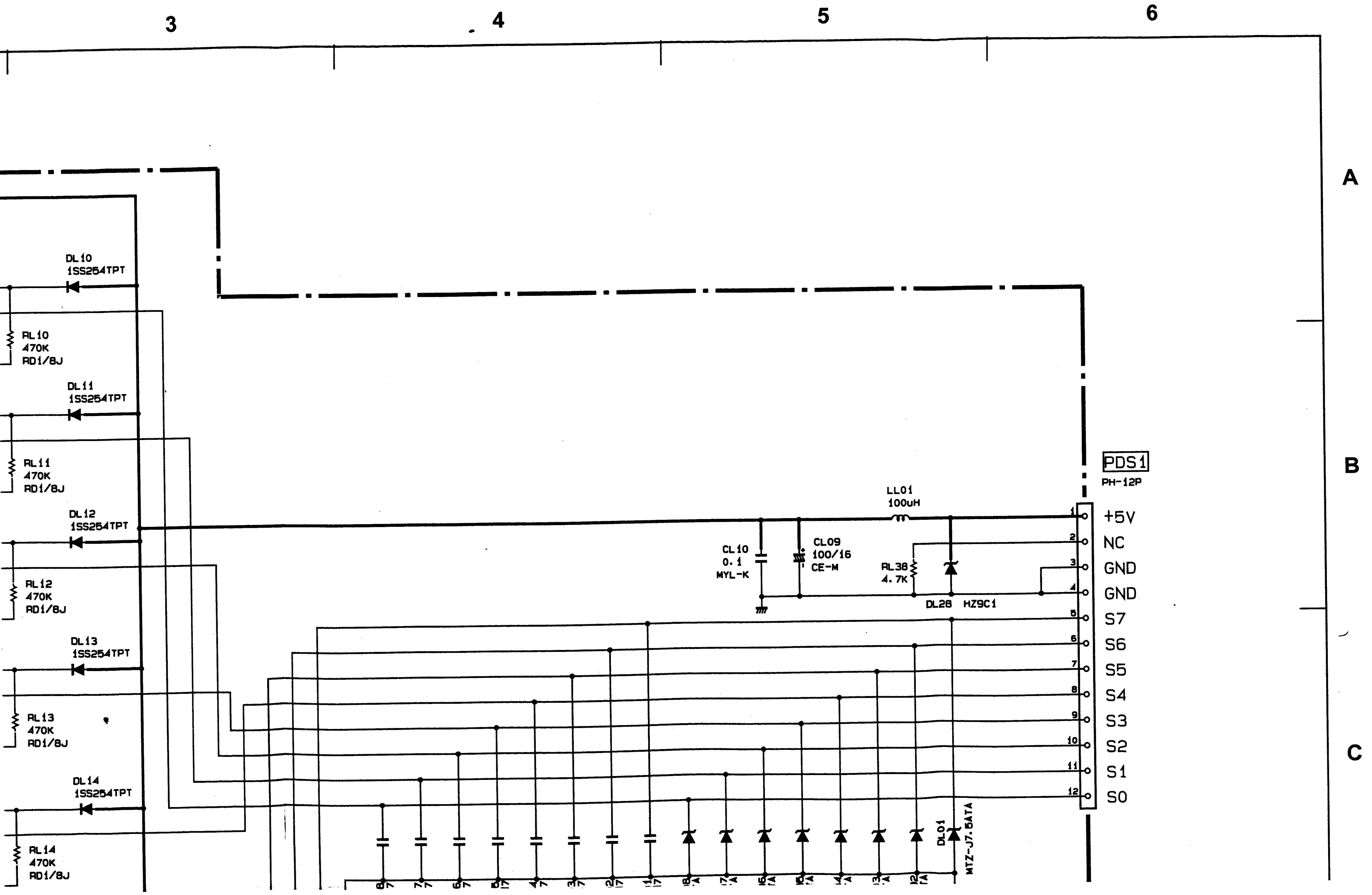

1
2
3
A
B
C
PS1
PH-9P
GND
S0
GND
S1
GND
S2
PS2
PH-10P
GND
S3
GND
S4
GND
S5
NC
DL20 MTZ-J6.2C
DL21 MTZ-J6.2C
DL22 MTZ-J6.2C
DL23 MTZ-J6.2C
DL24 MTZ-J6.2C
DL25 MTZ-J6.2C
DL30 MTZ-J9.1A
DL31 MTZ-J9.1A
DL32 MTZ-J9.1A
DL33 MTZ-J9.1A
DL34 MTZ-J9.1A
DL35 MTZ-J9.1A
RL30 100
RL31 100
RL32 100
RL33 100
RL34 100
QL10 2SA673 C/D
QL11 2SA673 C/D
QL12 2SA673 C/D
QL13 2SA673 C/D
QL14 2SA673 C/D
DL10 1SS254TPT
DL11 1SS254TPT
DL12 1SS254TPT
DL13 1SS254TPT
DL14 1SS254TPT
RL20 680K RD1/8J
RL21 220K RD1/8J
RL22 680K RD1/8J
RL23 470K RD1/8J
RL24 680K RD1/8J
RL10 470K RD1/8J
RL11 470K RD1/8J
RL12 470K RD1/8J
RL13 470K RD1/8J
RL14 470K RD1/8J

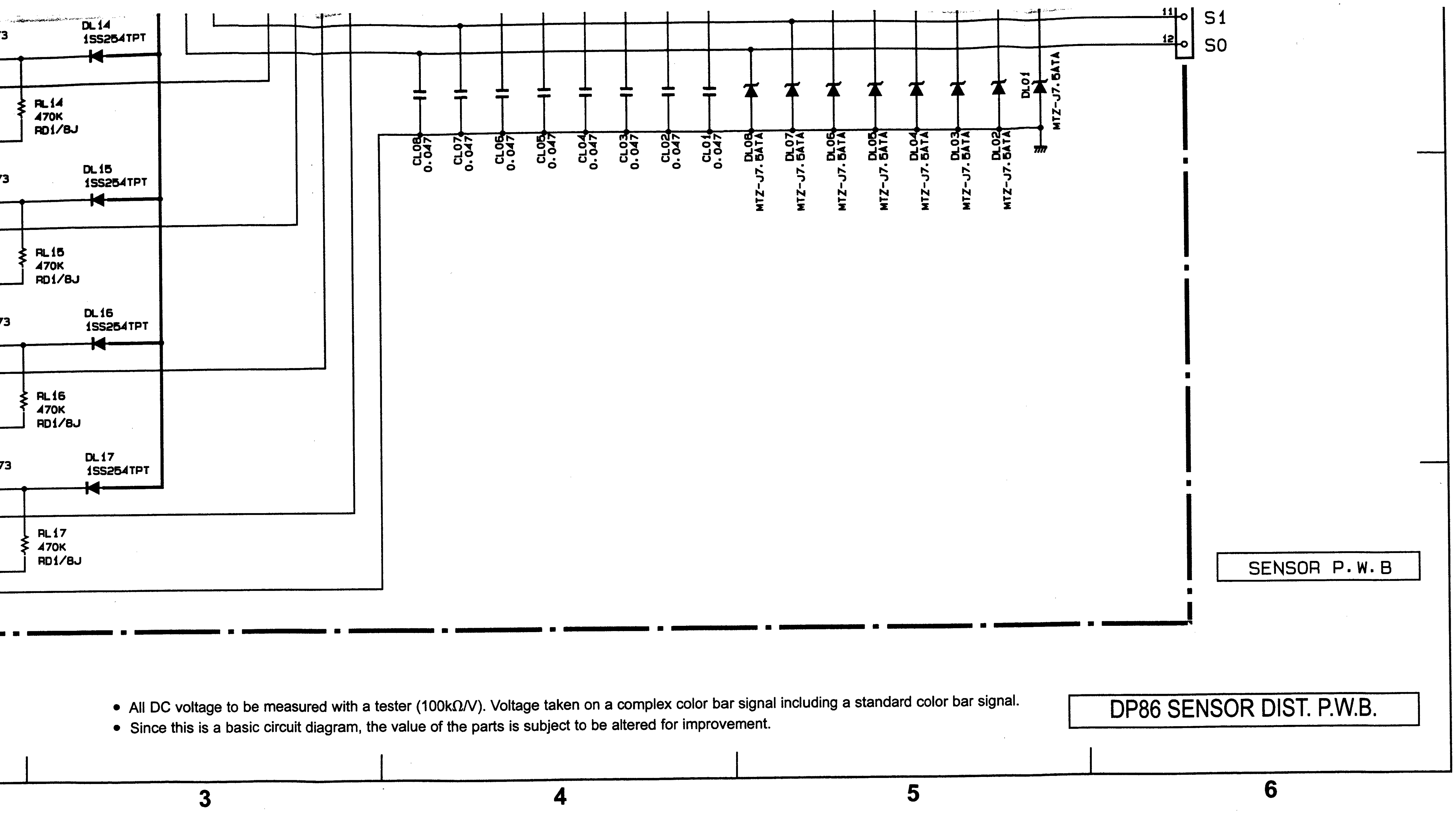

GND
S5
NC
PS3
PH-6P
GND
S6
GND
S7
D
E
DL34
MTZ-J9.1A
DL35
MTZ-J9.1A
DL36
MTZ-J9.1A
DL37
MTZ-J9.1A
DL25
MTZ-J6.2C
DL26
MTZ-J6.2C
DL27
MTZ-J6.2C
CL11
XXX
S8
XXX
KL01
100
RL35
100
RL36
100
RL37
100
QL14
2SA673
C/D
QL15
2SA673
C/D
QL16
2SA673
C/D
QL17
2SA673
C/D
RL24
680K
RD1/8J
RL25
220K
RD1/8J
RL26
680K
RD1/8J
RL27
470K
RD1/8J
RL14
470K
RD1/8J
RL15
470K
RD1/8J
RL16
470K
RD1/8J
RL17
470K
RD1/8J
DL14
1SS254TPT
DL15
1SS254TPT
DL16
1SS254TPT
DL17
1SS254TPT
CL08
0.047
CL07
0.047
CL06
0.047

- All DC voltage to be measured with a tester (100kΩ/V). Voltag
- Since this is a basic circuit diagram, the value of the parts is s

1 2 3

BASIC CIRCUIT DIAGRAM

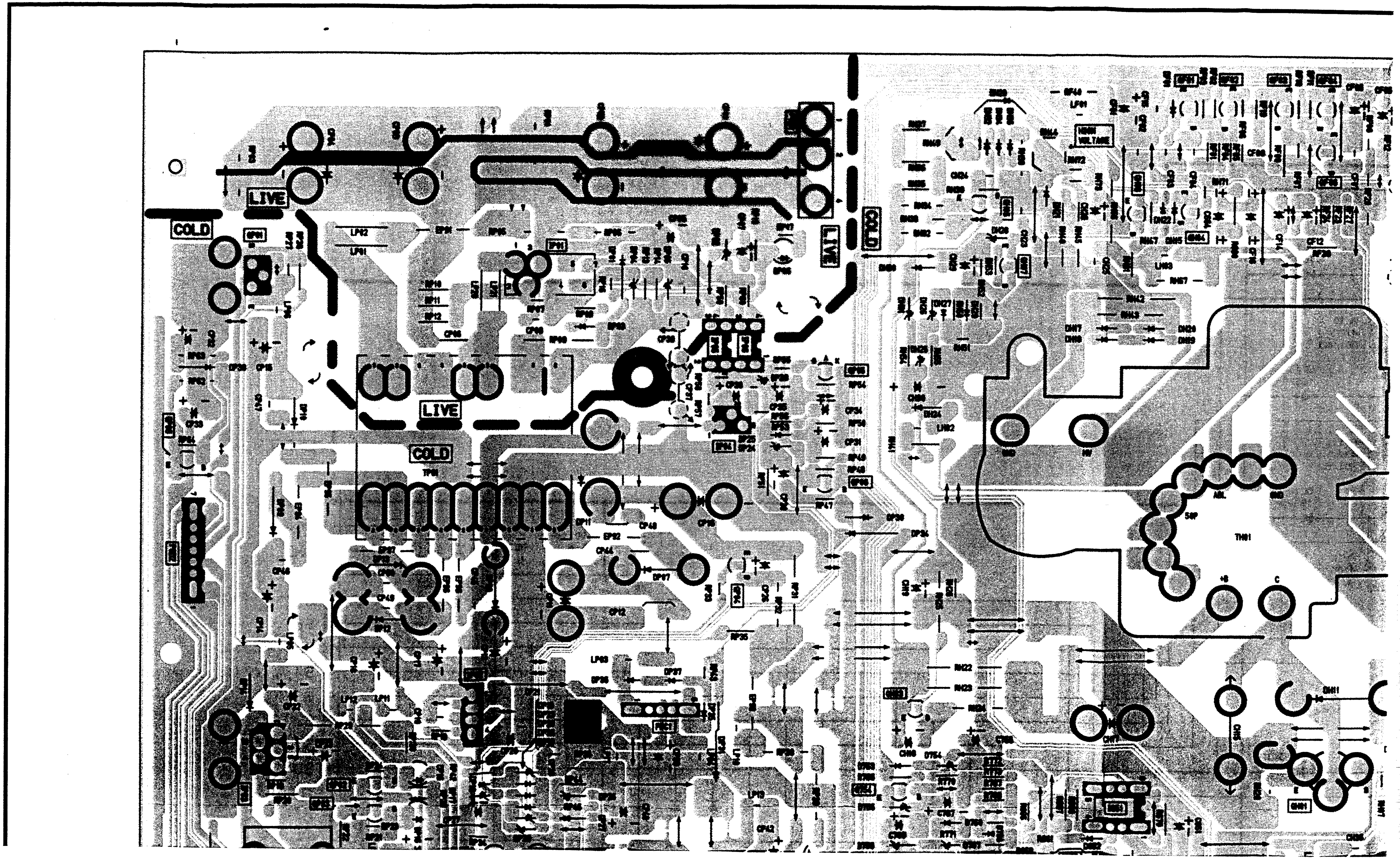

3
4
5
6
A
B
C
DL10
1SS254TPT
RL10
470K
RD1/8J
DL11
1SS254TPT
RL11
470K
RD1/8J
DL12
1SS254TPT
RL12
470K
RD1/8J
DL13
1SS254TPT
RL13
470K
RD1/8J
DL14
1SS254TPT
RL14
470K
RD1/8J
LL01
100uH
CL10
0.1
MYL-K
CL09
100/16
CE-M
RL38
4.7K
DL28
HZ9C1
PDS1
PH-12P
1 +5V
2 NC
3 GND
4 GND
5 S7
6 S6
7 S5
8 S4
9 S3
10 S2
11 S1
12 S0
DL01
MTZ-J7.5ATA

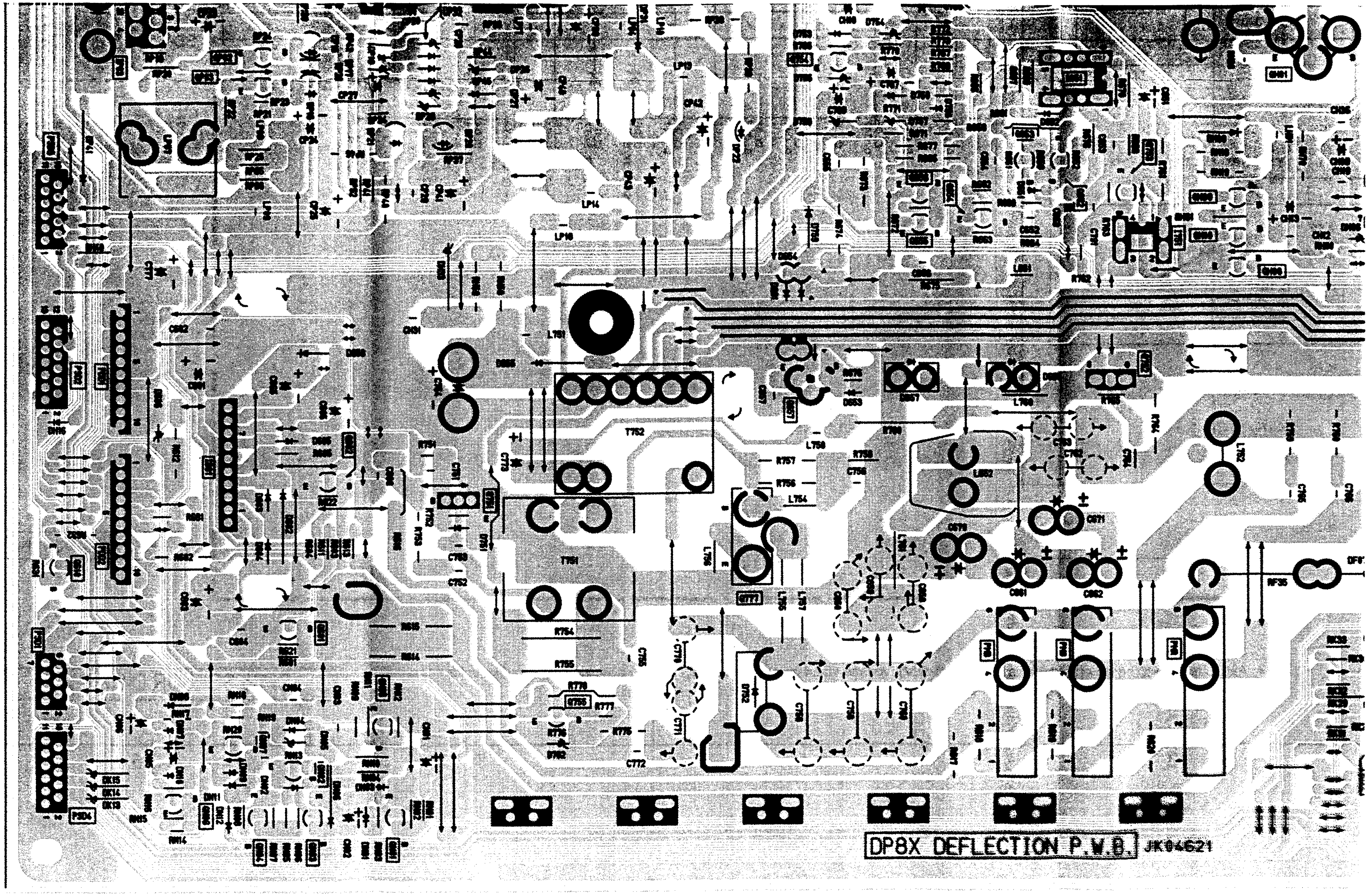

DL14
1SS254TPT
RL14
470K
RD1/8J
DL15
1SS254TPT
RL15
470K
RD1/8J
DL16
1SS254TPT
RL16
470K
RD1/8J
DL17
1SS254TPT
RL17
470K
RD1/8J
CL08 0.047
CL07 0.047
CL06 0.047
CL05 0.047
CL04 0.047
CL03 0.047
CL02 0.047
CL01 0.047
DL08 MTZ-J7.5ATA
DL07 MTZ-J7.5ATA
DL06 MTZ-J7.5ATA
DL05 MTZ-J7.5ATA
DL04 MTZ-J7.5ATA
DL03 MTZ-J7.5ATA
DL02 MTZ-J7.5ATA
DL01 MTZ-J7.5ATA
11 S1
12 S0
SENSOR P.W.B
D
E
3
4
5
6

- All DC voltage to be measured with a tester (100kΩ/V). Voltage taken on a complex color bar signal including a standard color bar signal.
- Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.

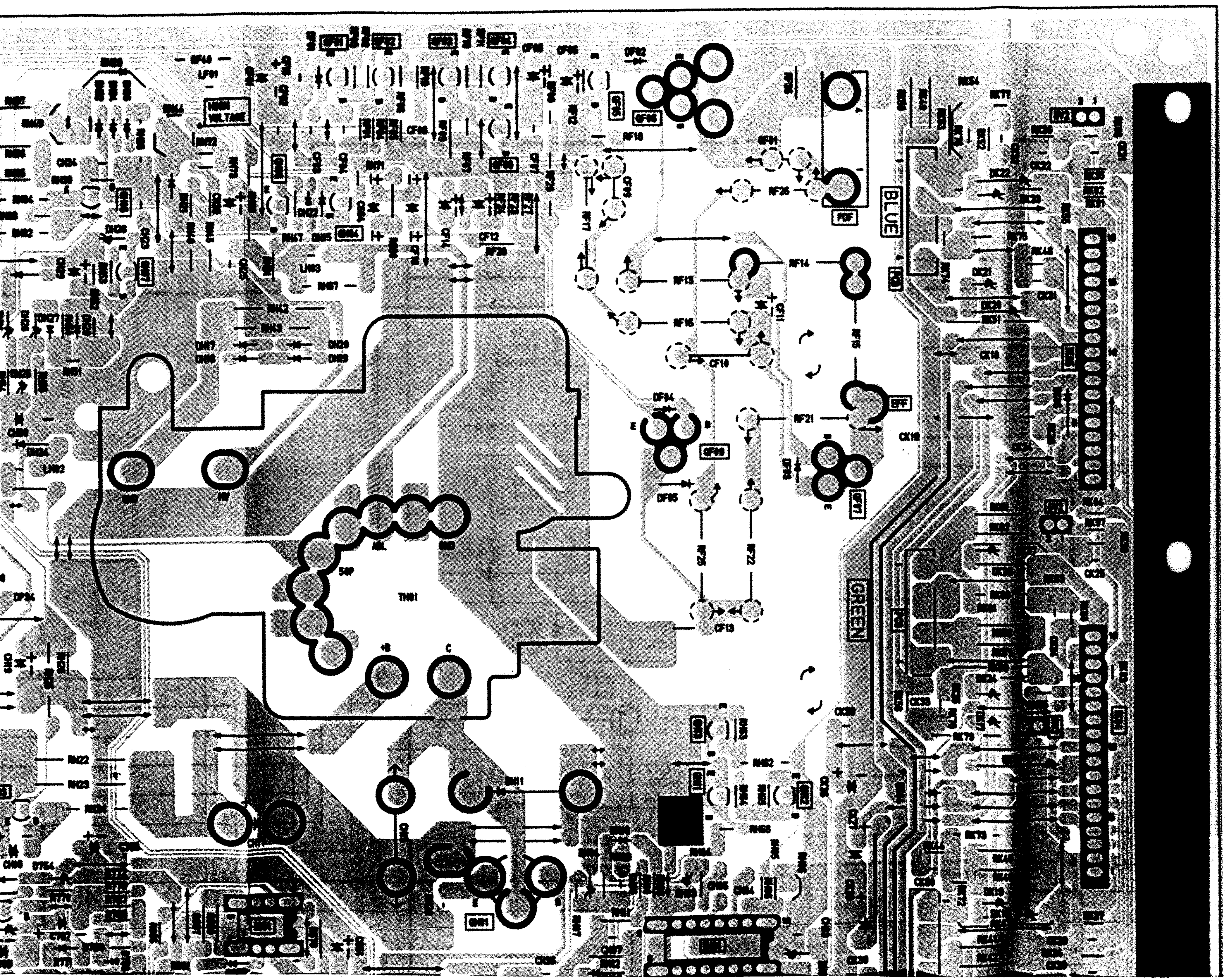
DP86 SENSOR DIST. P.W.B.

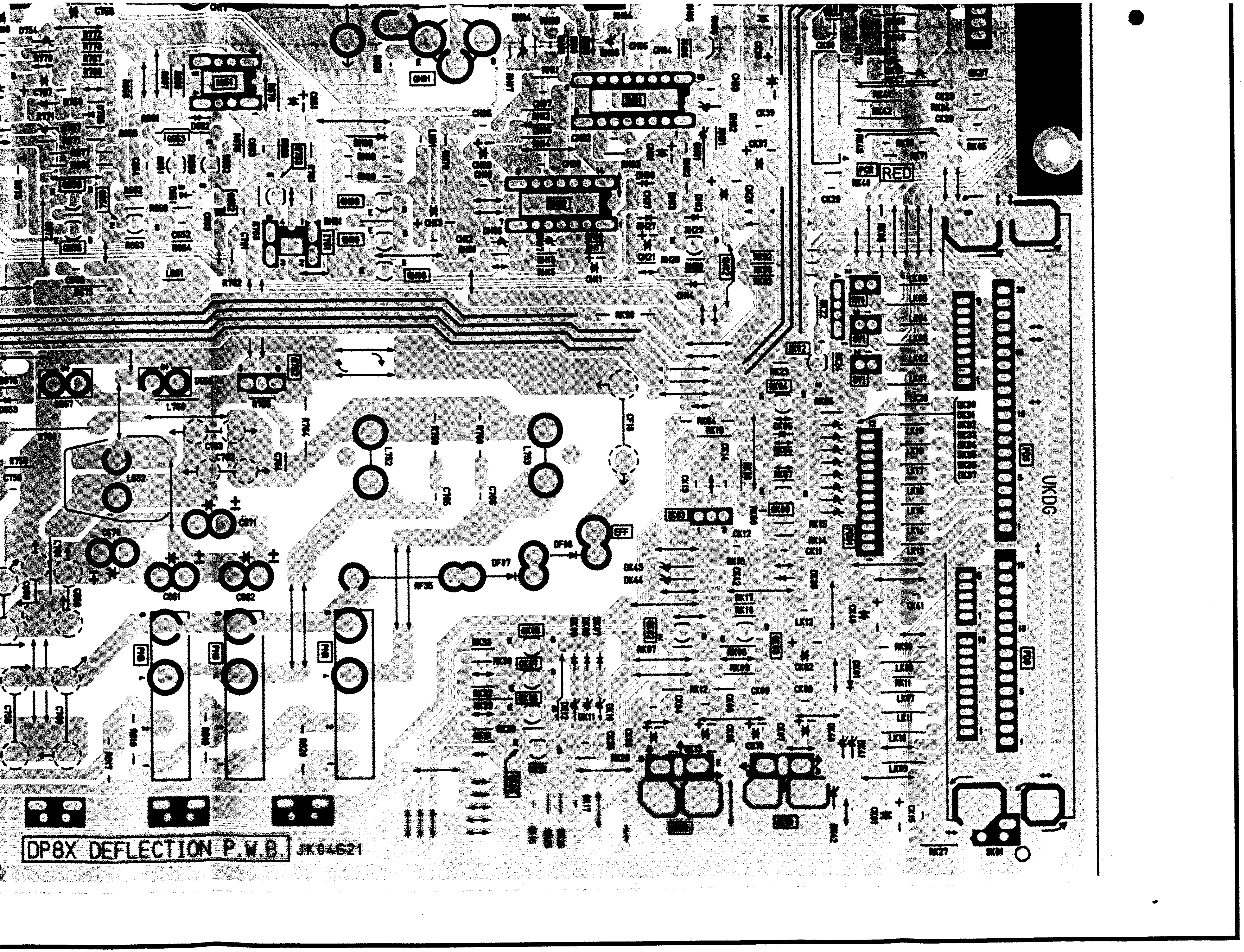
DEFLECTION P.W.B.


LIVE
COLD
LIVE
COLD
LIVE
COLD
HIGH VOLTAGE
TH01
ABL
+B
C



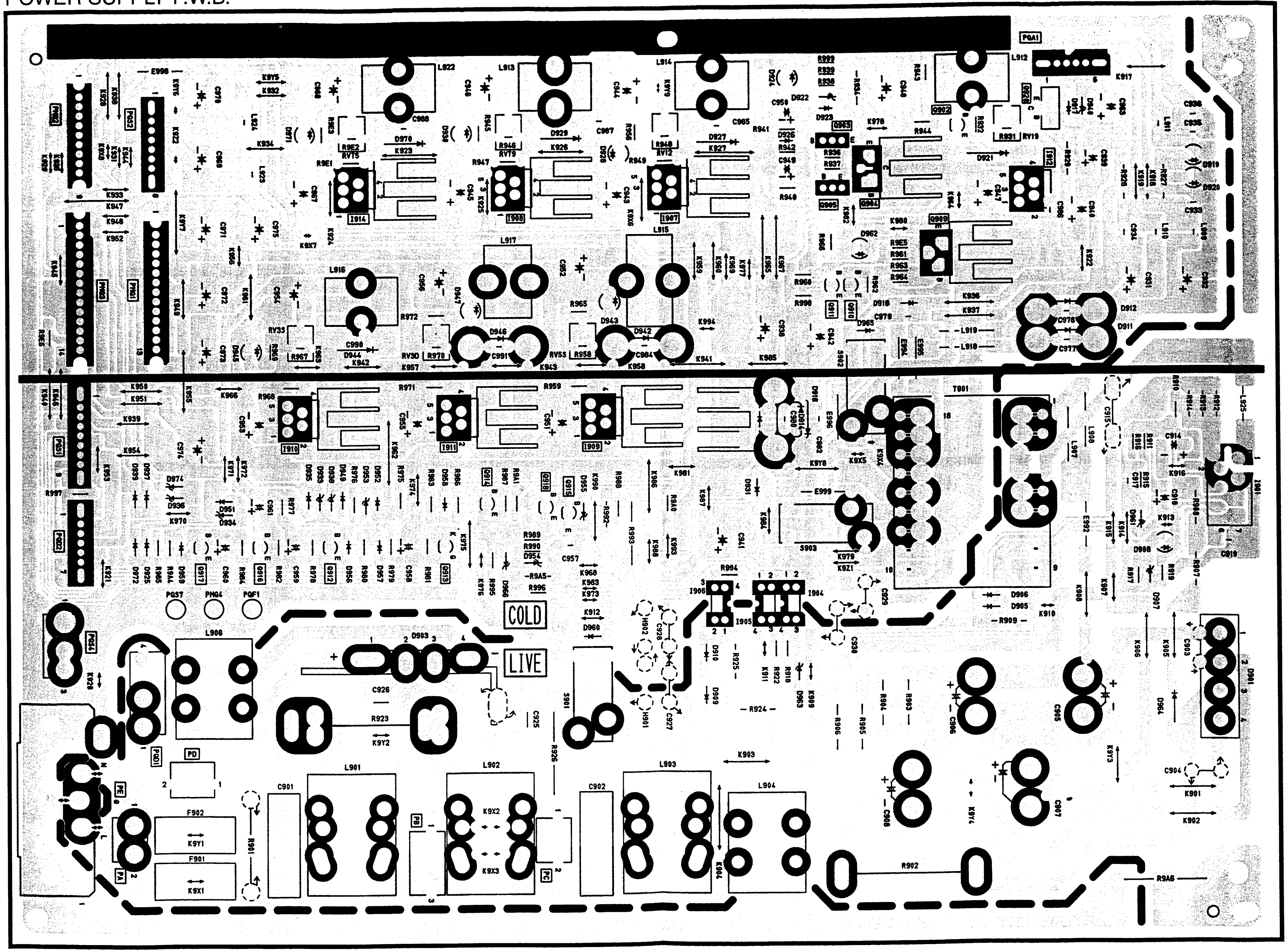
DP8X DEFLECTION P.W.B.
JK04621


HIGH VOLTAGE
BLUE
GREEN
TH01
ABL
SOP
+B
C
RF14
RF13
RF16
RF21
RF22
RF25
RF26
CF10
CF13
DF04
DF05
CK19
CK30
QH01


DP8X DEFLECTION P.W.B.
JK04621
UKDG
RED
EFF

PRINTED CIRCUIT BOARD

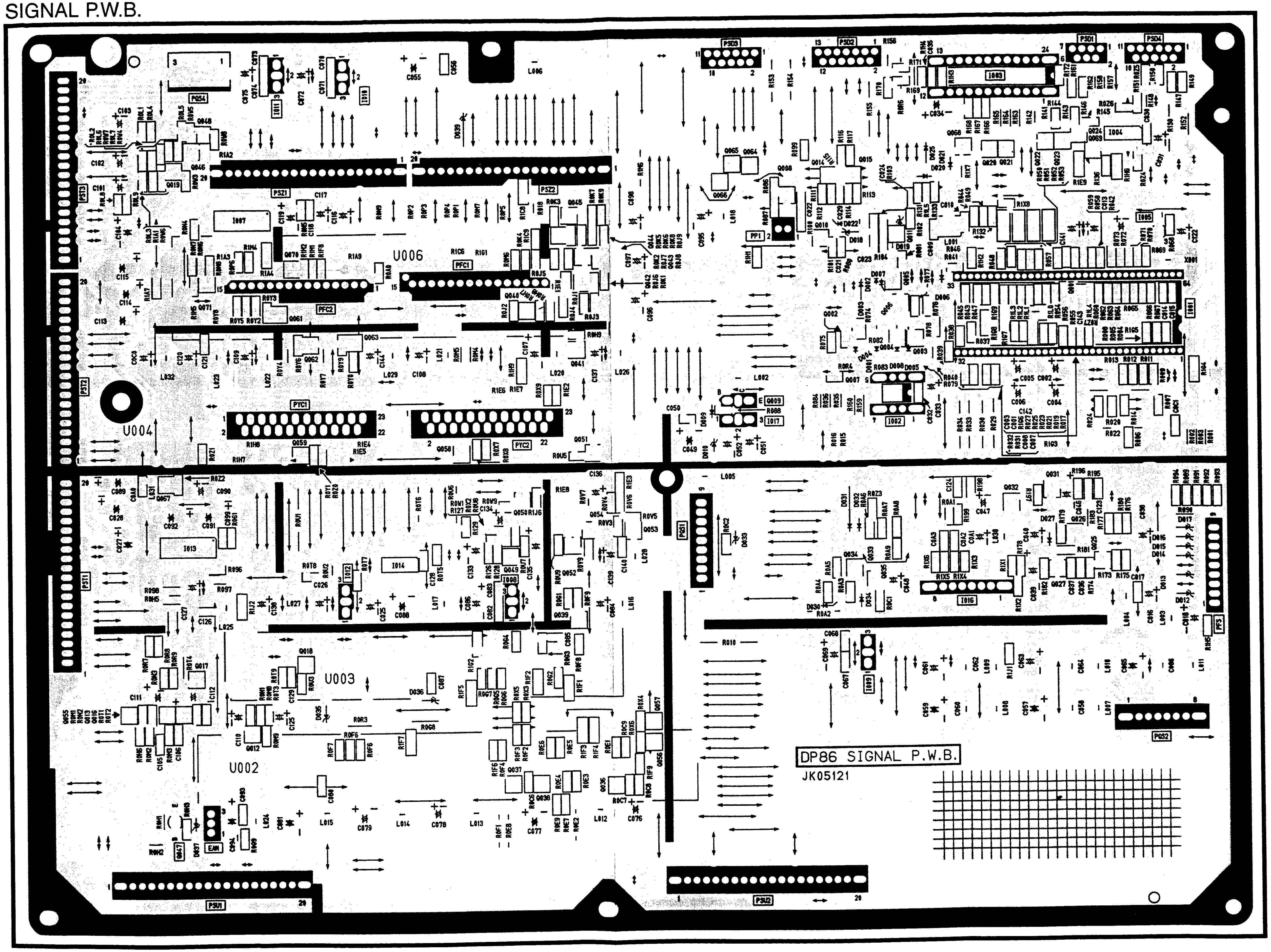
POWER SUPPLY P.W.B.



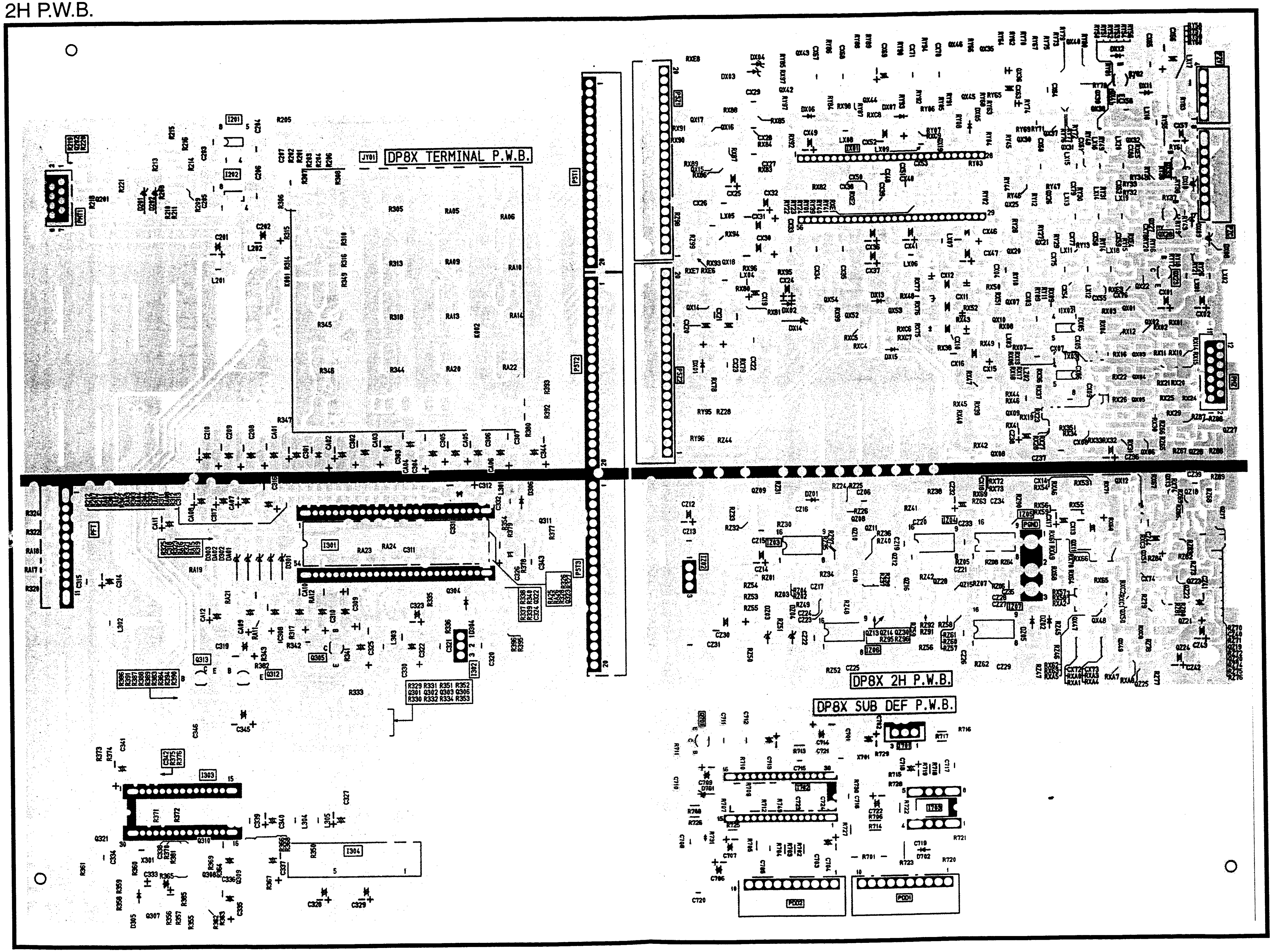
COLD
LIVE
T901
L901
L902
L903
L904
L906
L912
L913
L914
L915
L916
L917
L922
I901
I904
I905
I906
I907
I908
I909
I910
I911
I914
D903
F901
F902
K9X1
K9Y1
K9X2
K9X3
K9Y2
C901
C902
C925
C926
R901
R902
R923
R926
R9A8
S901
S903
PD
PE
PA
PB
PC
PQ41
PQA1
PQ37
PH04
PQF1
PQ01
COLD

PRINTED CIRCUIT BOARD

SIGNAL P.W.B.

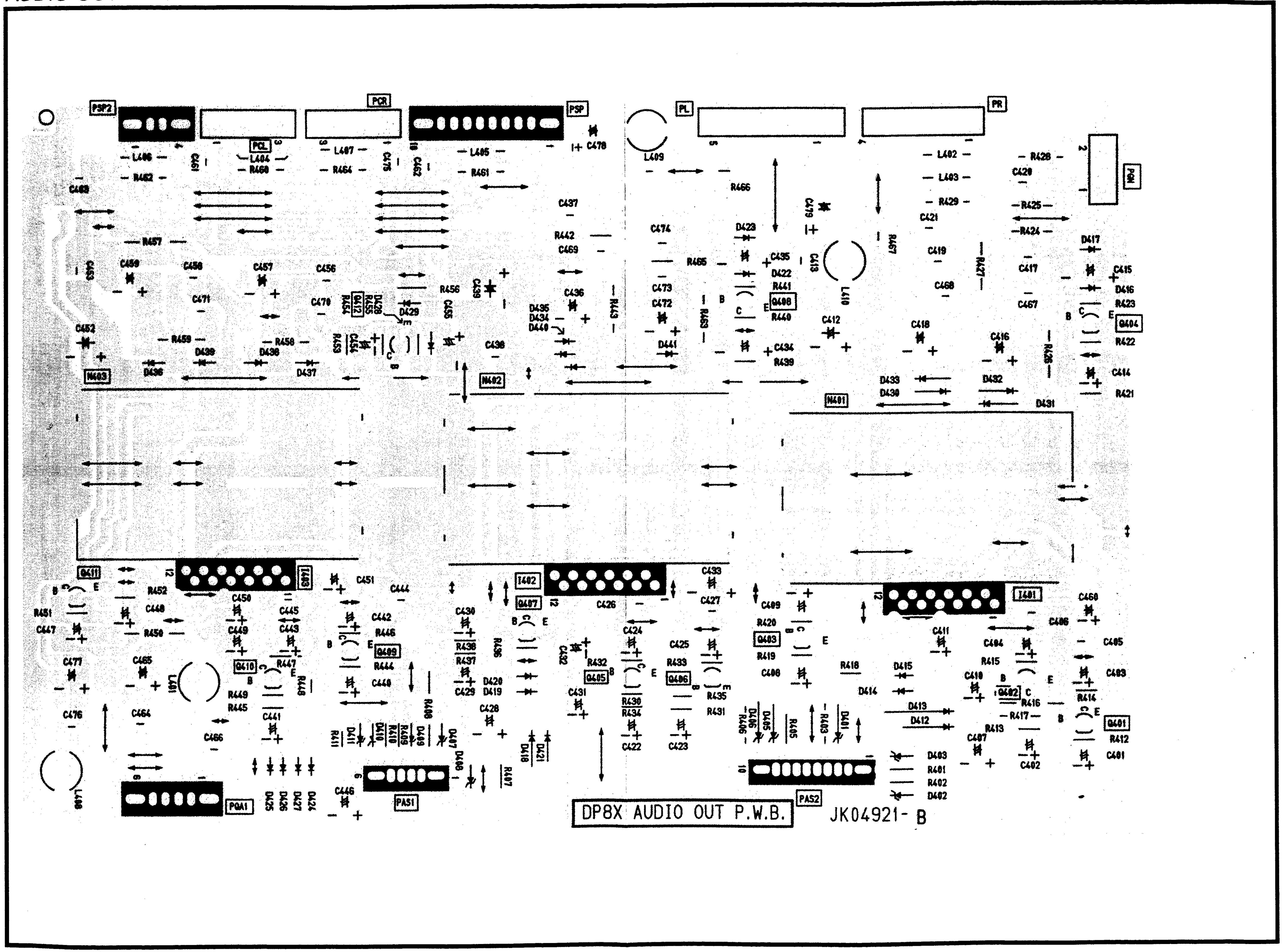

U006
U004
U003
U002
DP86 SIGNAL P.W.B.
JK05121
PSZ1
PSZ2
PSD1
PSD2
PSD3
PSD4
PST1
PST2
PST3
PSU1
PSU2
PYC1
PYC2
PFC1
PFC2
PGS1
PGS2
PFS
PP1
I001
I002
I003
I004
I005
I007
I013
I014
I016
X001

PRINTED CIRCUIT BOARD


DP8X TERMINAL P.W.B.
DP8X 2H P.W.B.
DP8X SUB DEF P.W.B.
I301
I303
I304
I201
I202
JY01
PST1
PST2
PST3
PFT1
PKT1
Q312
Q313
Q305
I302
IZ01
IZ02
IZ03
IZ04
IZ05
IZ06
PGND
I701
I702
I703
PC01
PC02
IX01
IX02

PRINTED CIRCUIT BOARD

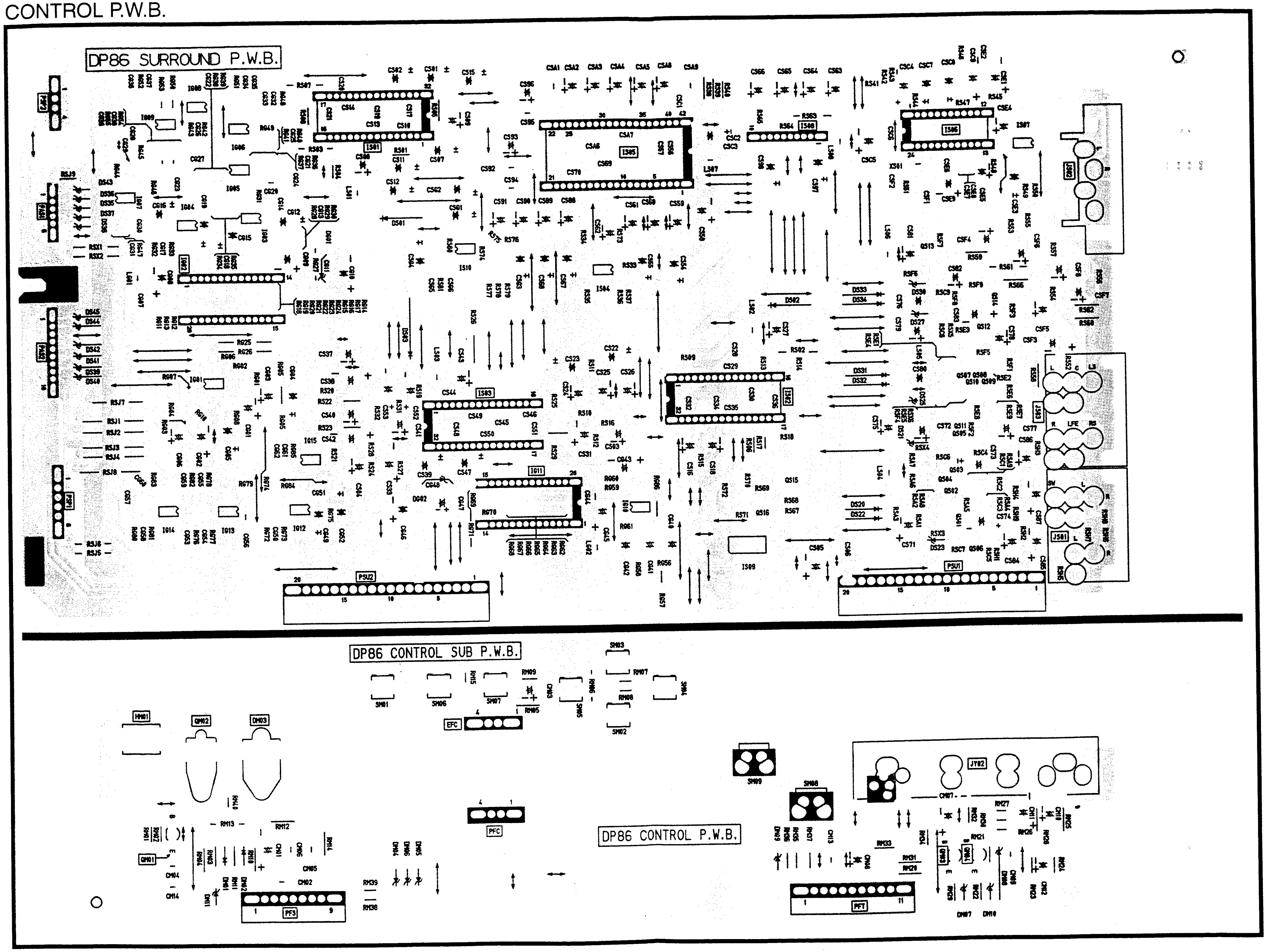
AUDIO OUT P.W.B.


PSP2
PCR
PSP
PL
PR
PCL
PGN
L406
L404
R460
L407
L405
R462
R464
R461
C478
L409
L402
L403
R428
C420
R466
R429
R425
R424
C437
C479
C474
D423
R442
C469
R465
C435
D422
R441
Q408
R440
C413
L410
R467
C419
C468
R427
C417
C467
D417
C415
D416
R423
Q404
R422
C414
R421
R457
C453
C459
C458
C457
C456
C471
C470
R456
C439
C436
R443
C473
C472
R463
C412
C418
C416
R426
C452
R459
D439
R458
D438
D436
D437
D429
C455
C438
D435
D434
D440
D441
C434
R439
D433
D430
D432
D431
N403
N402
N401
Q411
I403
C451
C444
I402
Q407
C426
C433
C427
C409
I401
C460
C406
C405
C403
R452
C450
C445
C448
C449
C443
C442
R446
Q409
R444
C440
R451
C447
R450
C477
C465
L401
Q410
R447
R449
R445
C441
R448
C430
R438
R437
R436
C429
D420
D419
C428
C432
R432
Q405
C431
C424
R430
R434
C422
C425
R433
Q406
R435
R431
C423
R420
Q403
R419
C408
R418
D415
D414
D413
D412
C411
C404
R415
C410
Q402
R416
R417
R413
C407
C402
R414
Q401
R412
C401
C476
C464
C466
L408
PGA1
D425
D426
D427
D424
R411
D411
D410
R410
R409
D409
D407
D408
R408
D418
D421
R407
C446
PAS1
PAS2
D406
R406
D405
R405
R403
D401
D403
R401
R402
D402
DP8X AUDIO OUT P.W.B.
JK04921- B

SURROUND P.W.B. CONTROL SUB P.W.B.

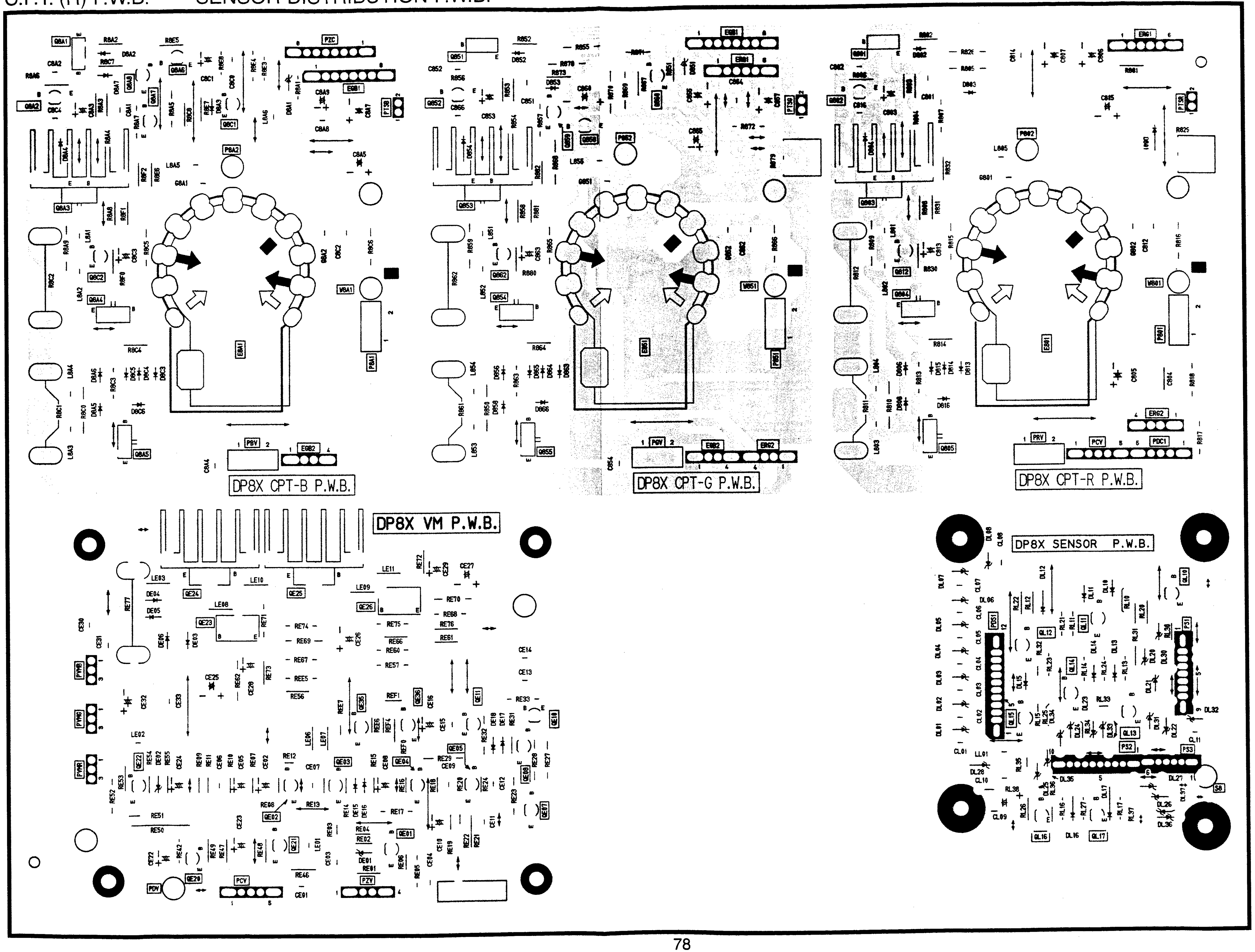
CONTROL P.W.B.

PRINTED CIRCUIT BOARD

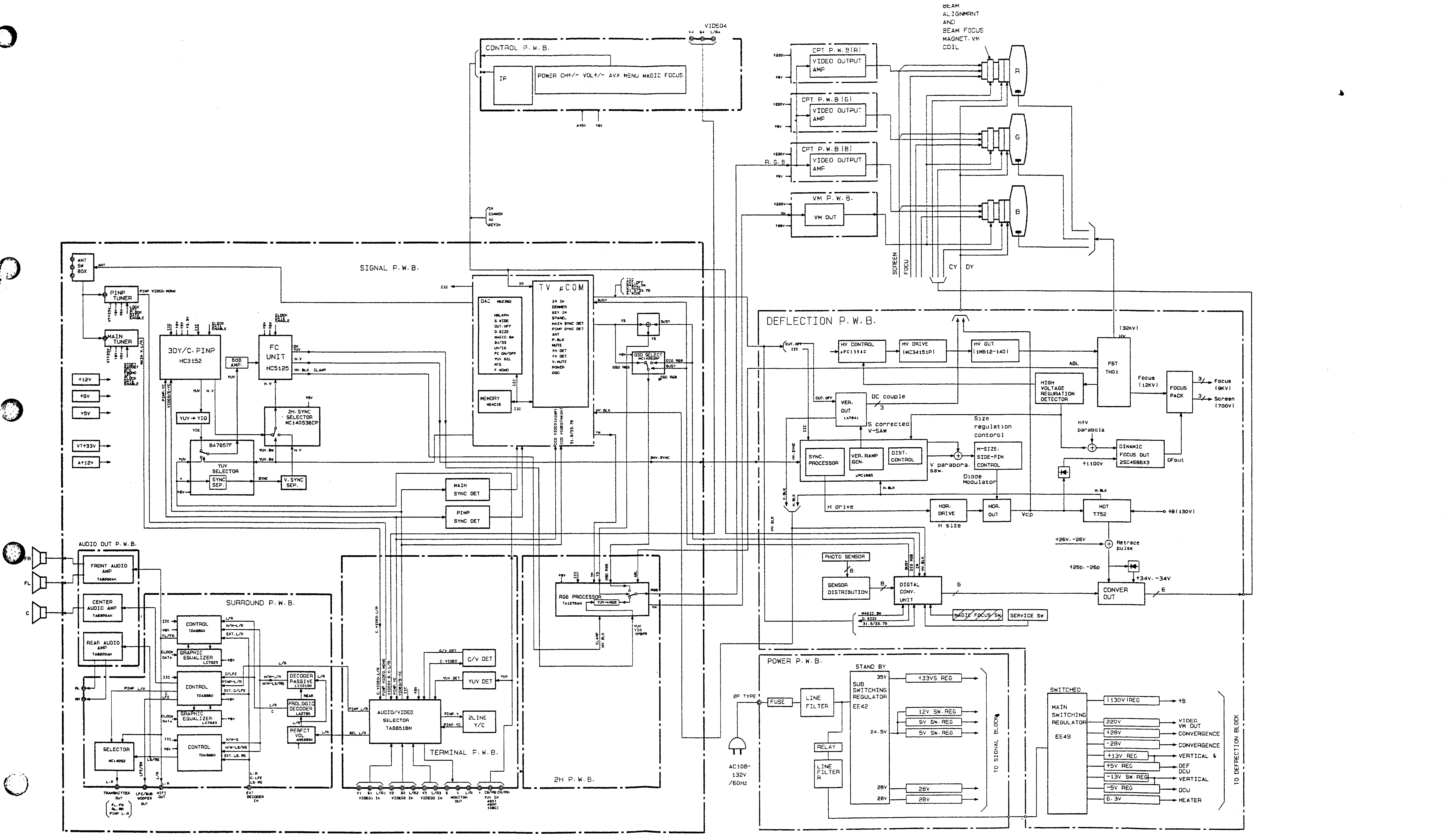

DP86 SURROUND P.W.B.
DP86 CONTROL SUB P.W.B.
DP86 CONTROL P.W.B.
PSU2
PSU1
PFS
PFC
PFT
EFC
JY02
J501
IS01
IS02
IS03
IS04
IS05
IS06
IS08
IG11

C.P.T. (B) P.W.B.
C.P.T. (G) P.W.B. VM P.W.B.
C.P.T. (R) P.W.B. SENSOR DISTRIBUTION P.W.B.

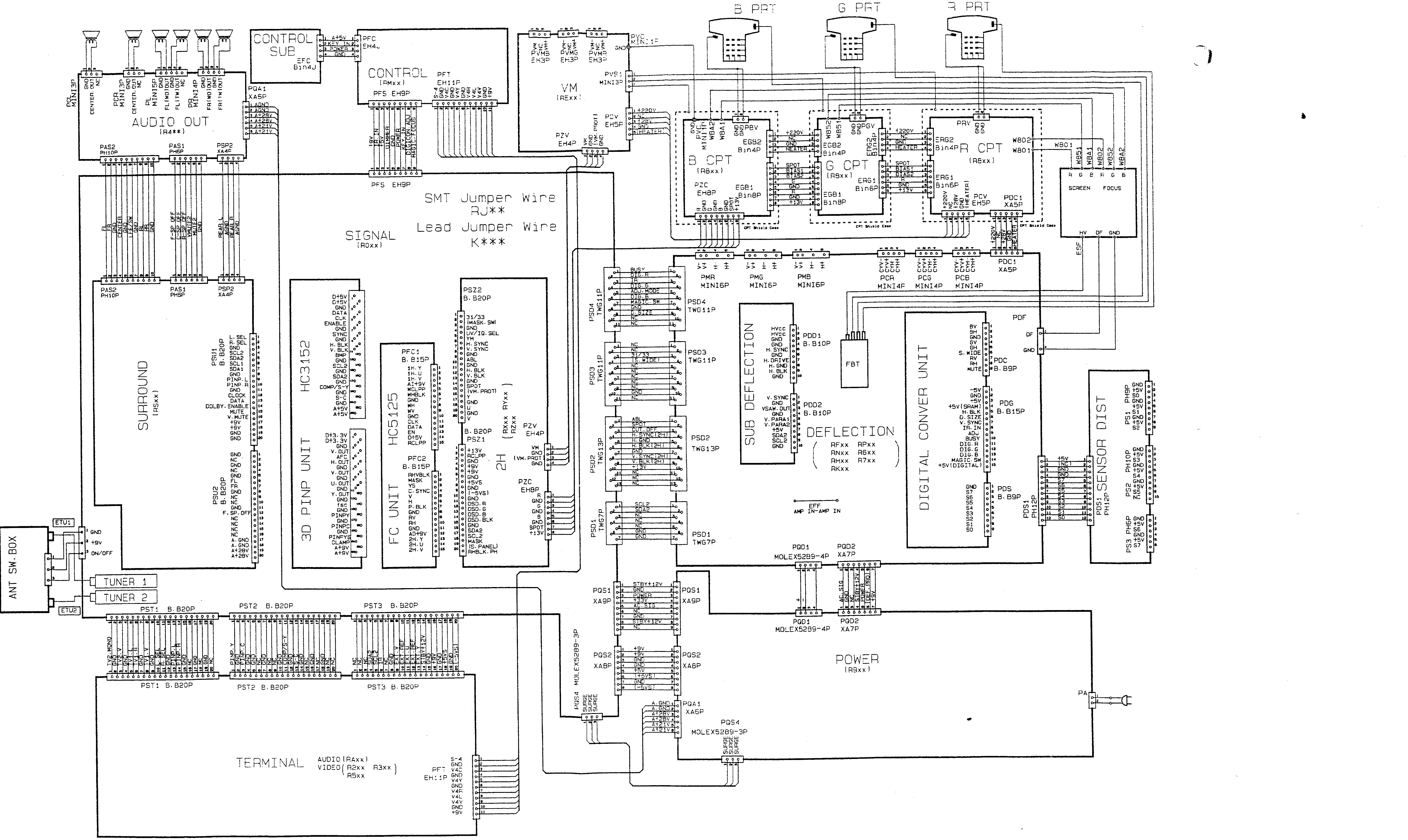
PRINTED CIRCUIT BOARD


DP8X CPT-B P.W.B.
DP8X CPT-G P.W.B.
DP8X CPT-R P.W.B.
DP8X VM P.W.B.
DP8X SENSOR P.W.B.

DP86 BLOCK DIAGRAM

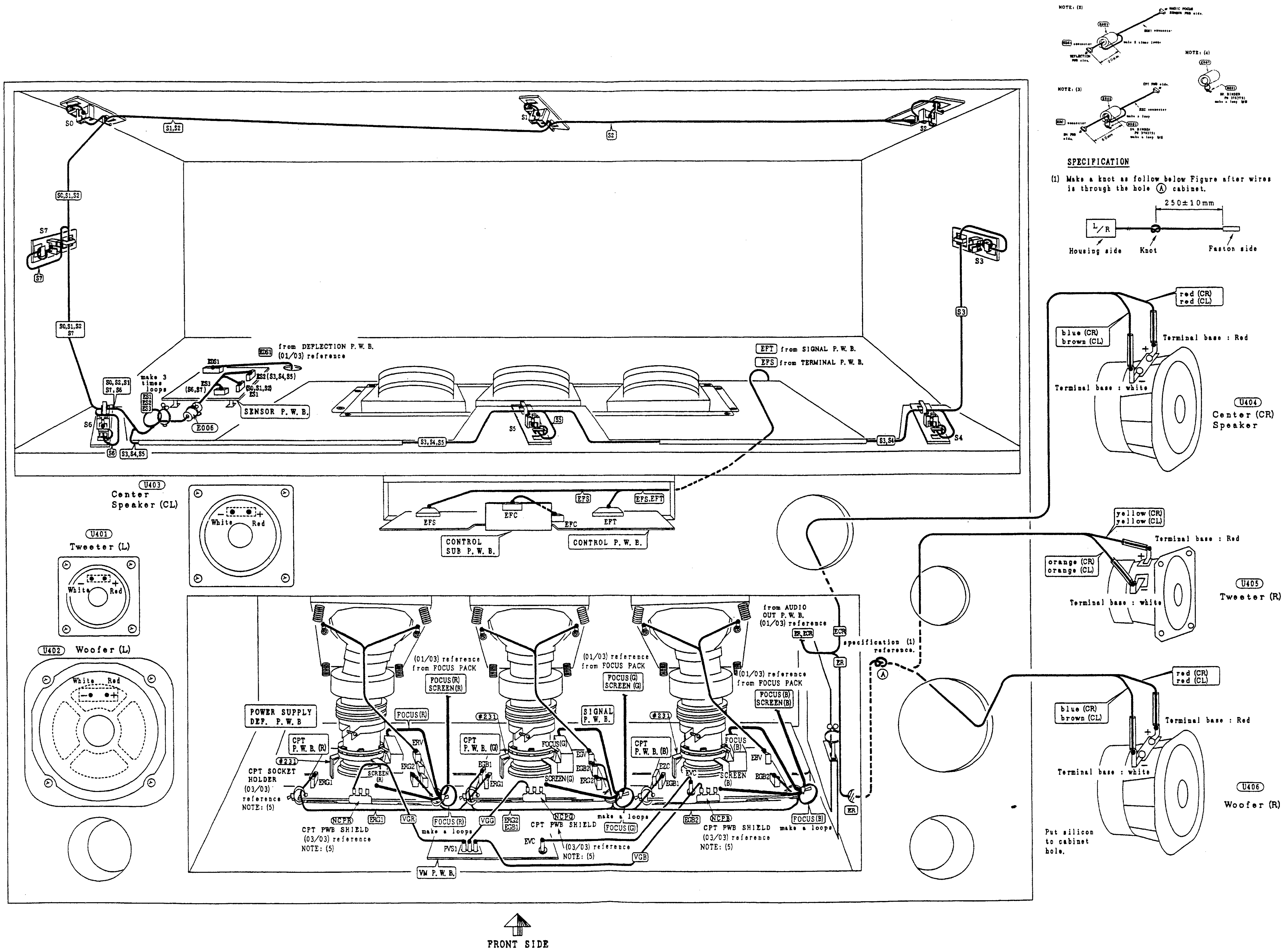

CONTROL P.W.B.
IR
POWER CH+/- VOL+/- AVX MENU MAGIC FOCUS
VID504
BEAM ALIGNMRNT AND BEAM FOCUS MAGNET, VM COIL
CPT P.W.B (R)
VIDEO OUTPUT AMP
CPT P.W.B (G)
VIDEO OUTPUT AMP
CPT P.W.B (B)
VIDEO OUTPUT AMP
R.G.B
VM P.W.B.
VM OUT
R
G
B
SCREEN
FOCU
CY
DY
SIGNAL P.W.B.
ANT SW BOX
PINP TUNER
MAIN TUNER
+12V
+9V
+5V
VT+33V
A+12V
3DY/C.PINP
HC3152
6dB AMP.
FC UNIT
HC5125
YUV→YIQ
BA7657F
YUV SELECTOR
SYNC SEP.
2H.SYNC SELECTOR
MC14053BCP
V.SYNC SEP.
MAIN SYNC DET
PINP SYNC DET
DAC M62392
MEMORY
M24C16
TV µCOM
OSD SELECT
MC14053BP
DEFLECTION P.W.B.
HV CONTROL
µPC1314C
HV DRIVE
(MC34151P)
HV OUT
(1MBI2-140)
FBT
TH01
(32KV)
HV
ABL
HIGH VOLTAGE REGURATION DETECTOR
Focus (12KV)
FOCUS PACK
Focus (9KV)
Screen (700V)
VER. OUT
LA7841
DC couple
S corrected V-SAW
SYNC. PROCESSOR
VER. RAMP GEN.
DIST. CONTROL
µPC1885
V parabora. saw.
H-SIZE. SIDE-PIN CONTROL
Size regulation contorol
Diode Modulator
H+V parabola
DINAMIC FOCUS OUT
2SC4686X3
DFout
+110V
H drive
HOR. DRIVE
H size
HOR. OUT
Vcp
HOT
T752
+B(130V)
+26V.-26V
Retrace pulse
+26p.-26p
+34V.-34V
PHOTO SENSOR
SENSOR DISTRIBUTION
DIGTAL CONV. UNIT
CONVER OUT
MAGIC FOCUS SW
SERVICE SW
AUDIO OUT P.W.B.
FRONT AUDIO AMP
TA8200AH
CENTER AUDIO AMP
TA8200AH
REAR AUDIO AMP
TA8200AH
FR
FL
C
RL
RR
SURROUND P.W.B.
CONTROL
TDA9860
GRAPHIC EQUALIZER
LC7523
DECODER PASSIVE
LV1010N
PROLOGIC DECODER
LA2785
PERFCT VOL
AN5285K
SELECTOR
MC14052
TRANSMITTER OUT
LFE/SUB WOOFER OUT
HIFI OUT
EXT DECODER IN
AUDIO/VIDEO SELECTOR
TA8851BN
C/V DET
YUV DET
2LINE Y/C
TERMINAL P.W.B.
VIDEO1 IN
VIDEO2 IN
VIDEO3 IN
MONITOR OUT
YUV IN
2H P.W.B.
RGB PROCESSOR
TA1276AN
YUV→RGB
POWER P.W.B.
STAND BY
2P TYPE
FUSE
LINE FILTER
RELAY
LINE FILTER
AC108-132V /60Hz
SUB SWITCHING REGULATOR
EE42
35V
24.5V
28V
28V
+33VS REG
12V SW.REG
9V SW.REG
5V SW.REG
28V
28V
TO SIGNAL BLOCK
SWITCHED
MAIN SWITCHING REGULATOR
EE49
(130V)REG
220V
+28V
-28V
+13V REG
+5V REG
-13V SW.REG
-5V REG
6.3V
+B
VIDEO VM OUT
CONVERGENCE
CONVERGENCE
VERTICAL &
DEF DCU
VERTICAL
DCU
HEATER
TO DEFLECTION BLOCK

DP86 WIRING DIAGRAM



B PRT
G PRT
R PRT
CONTROL SUB
EFC B1n4J
PFC EH4L
+5V
KEY IN
POWER
GND
CONTROL
(RMxx)
PFT EH11P
PFS EH9P
VM
(RExx)
PVC MINI1P
PVS1 MINI3P
PCV EH5P
PZV EH4P
+220V
NC
+12V
GND
HEATER
AUDIO OUT
(R4**)
PQA1 XA5P
AGND
A+28V
A+21V
PCL MINI3P
PCR MINI3P
PL MINI5P
PR MINI4P
PAS2 PH10P
PAS1 PH5P
PSP2 XA4P
CENTER OUT
B CPT
(R6xx)
G CPT
(R8xx)
R CPT
(R6xx)
PBV
PGV
PRV
EGB2 B1n4P
EGB1 B1n8P
EGG2 B1n4P
EGG1 B1n6P
ERG2 B1n4P
ERG1 B1n6P
PZC EH8P
EGB1 B1n8P
PCV EH5P
PDC1 XA5P
SPOT
BIAS1
BIAS2
+13V
W802
W801
W851
W8A1
W852
W8A2
SCREEN
FOCUS
HV
DF
GND
ESF
CPT Shield Case
SMT Jumper Wire
RJ**
Lead Jumper Wire
K***
SIGNAL
(R0xx)
PFS EH9P
SURROUND
(RSxx)
PSU1 B.B20P
PSU2 B.B20P
3D PINP UNIT
HC3152
FC UNIT
HC5125
PFC1 B.B15P
PFC2 B.B15P
2H
(RXxx RYxx RZxx)
PSZ2 B.B20P
PSZ1 B.B20P
PZV EH4P
PZC EH8P
VM
GND
(VM.PROT)
R
G
B
SPOT
+13V
PSD4 TWG11P
PSD3 TWG11P
PSD2 TWG13P
PSD1 TWG7P
PMR MINI6P
PMG MINI6P
PMB MINI6P
PCR MINI4P
PCG MINI4P
PCB MINI4P
PDC1 XA5P
SUB DEFLECTION
PDD1 B.B10P
PDD2 B.B10P
DEFLECTION
(RFxx RPxx RNxx R6xx RHxx R7xx RKxx)
FBT
EFF
AMP IN-AMP IN
DIGITAL CONVER UNIT
PDF
PDC B.B9P
PDG B.B15P
PDS B.B9P
PDS1 PH12P
SENSOR DIST
PS1 PH9P
PS2 PH10P
PS3 PH6P
PQD1 MOLEX5289-4P
PQD2 XA7P
PQS1 XA9P
PQS2 XA6P
PQS4 MOLEX5289-3P
PQA1 XA6P
SURGE
POWER
(R9xx)
PA
ANT SW.BOX
ETU1
ETU2
GND
+9V
ON/OFF
TUNER 1
TUNER 2
PST1 B.B20P
PST2 B.B20P
PST3 B.B20P
TERMINAL
AUDIO (RAxx)
VIDEO (R2xx R3xx R5xx)
PFT EH11P

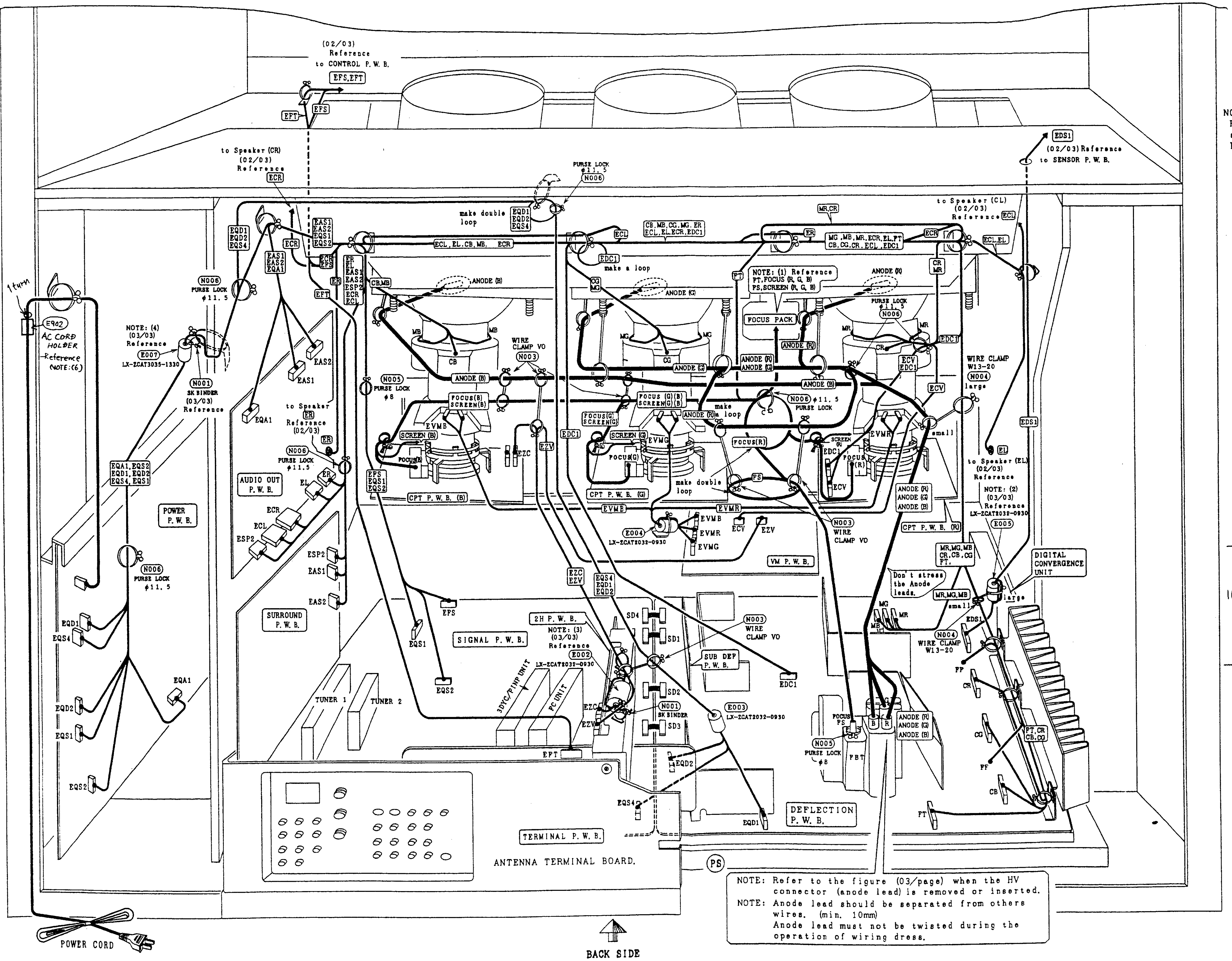
60SDX88B WIRING DRAWING


NOTE: (2)
MAGIC FOCUS SENSOR PWB side.
E003
EDS1 connector
EDS1 connector
make 2 times loops
DEFLECTION PWB side.
20mm
NOTE: (4)
E007
M001
SK BINDER PG 3763751 make a loop
NOTE: (3)
CPT PWB side.
E002
EZC connector
make a loop
EZC connector
SK PWB side.
60mm
SK BINDER PG 3763751 make a loop
L/R
250±10mm
Housing side
Knot
Faston side
S0
S1,S2
S1
S2
S2
SC,S1,S2
S7
S7
S3
S0,S1,S2 S7
S3
EDS1 from DEFLECTION P. W. B. (01/03) reference
EDS1
EFT from SIGNAL P. W. B.
EFS from TERMINAL P. W. B.
S0, S2, S1 S7, S6
make 3 times loops
ES1 ES2 ES3
ES3 (S6,S7)
ES2 (S3,S4,S5)
(S0,S1,S2) ES1
SENSOR P. W. B.
E006
S6
S5
S5
S4
S6
S3,S4,S5
S3,S4,S5
S3,S4
U403
Center Speaker (CL)
White
Red
EFS
EFS.EFT
EFS
EFC
EFC
EFT
CONTROL SUB P. W. B.
CONTROL P. W. B.
U401
Tweeter (L)
White
Red
U402
Woofer (L)
White
Red
from AUDIO OUT P. W. B. (01/03) reference
ER,ECR
ECR
specification (1) reference.
ER
A
ER
(01/03) reference from FOCUS PACK
FOCUS(R) SCREEN(R)
(01/03) reference from FOCUS PACK
FOCUS (G) SCREEN (G)
(01/03) reference from FOCUS PACK
FOCUS (B) SCREEN (B)
POWER SUPPLY DEF. P. W. B
FOCUS(R)
#231
SIGNAL P. W. B.
#231
CPT P. W. B. (R)
ERV
CPT P. W. B. (G)
FOCUS(G)
EGV
CPT P. W. B. (B)
FOCUS (B)
EBV
#231
CPT SOCKET HOLDER (03/03) reference NOTE: (5)
ERG1
SCREEN (R)
ERG2
EGB1
ERG1
EGB2
SCREEN(G)
ERG2
EZC
EGB1
EVC
SCREEN (B)
EGB2
NCPR
ERG1
VGR
FOCUS (R)
VGG
ERG2 EGB1
NCPG
make a loops
EGB2
NCPB
FOCUS (B)
CPT PWB SHIELD (03/03) reference NOTE: (5)
make a loops
CPT PWB SHIELD
FOCUS (G)
CPT PWB SHIELD (03/03) reference NOTE: (5)
make a loops
PVS1
EVC
(03/03) reference NOTE: (5)
VGB
VM P. W. B.
red (CR) red (CL)
blue (CR) brown (CL)
Terminal base : Red
Terminal base : white
U404
Center (CR) Speaker
yellow (CR) yellow (CL)
Terminal base : Red
orange (CR) orange (CL)
Terminal base : white
U405
Tweeter (R)
red (CR) red (CL)
blue (CR) brown (CL)
Terminal base : Red
Terminal base : white
U406
Woofer (R)
Put silicon to cabinet hole.
FRONT SIDE

SPECIFICATION

(1) Make a knot as follow below Figure after wires is through the hole Ⓐ cabinet.

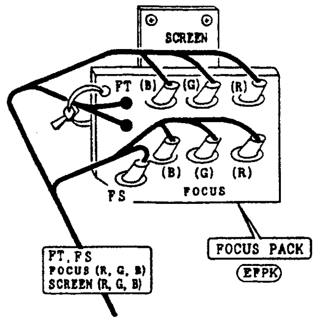
60SDX88B WIRING DRAWING


(02/03) Reference to CONTROL P. W. B.
EFS,EFT
EFT
EFS
to Speaker (CR) (02/03) Reference
ECR
PURSE LOCK ϕ11.5
N006
make double loop
EQD1 EQD2 EQS4
EAS1 EAS2 EQS1 EQS2
ECR
ER EFS
ER EL EAS1 EAS2 ESP2 ECR ECL
EFT
ECL, EL, CB, MB. ECR
CE, MB, CG, MG, ER ECL, EL, ECR, EDC1
ECL
EDC1
make a loop
MR, CR
ER
MG, MB, MR, ECR, EL, FT CB, CG, CR, ECL, EDC1
ECR
to Speaker (CL) (02/03) Reference ECL
ECL, EL
EDS1
(02/03) Reference to SENSOR P. W. B.
1turn
E902
AC CORD HOLDER Reference (NOTE: (6))
N006 PURSE LOCK ϕ11.5
EAS1 EAS2 EQA1
NOTE: (4) (03/03) Reference
E007
LX-ZCAT3035-1330
N001 SK BINDER (03/03) Reference
EAS2
EAS1
EQA1
to Speaker ER Reference (02/03)
ER
N006 PURSE LOCK ϕ11.5
ER
EL
AUDIO OUT P. W. B.
EQA1, EQS2 EQD1, EQD2 EQS4, EQS1
POWER P. W. B.
ECR
ECL
ESP2
ESP2
EAS1
EAS2
N006 PURSE LOCK ϕ11.5
EQD1
EQS4
EQA1
EQD2
EQS1
EQS2
SURROUND P. W. B.
CB, MB
ANODE (B)
MB
MB
WIRE CLAMP VO
N003
CB
ANODE (B)
N005 PURSE LOCK ϕ8
FOCUS(B) SCREEN(B)
EVMB
SCREEN (B)
FOCUS(B)
EZC
EZV
EFS EQS1 EQS2
CPT P. W. B. (B)
EVMB
CG MG
ANODE (G)
MG
MG
CG
ANODE (G)
FOCUS (G)(B) SCREEN(G)(B)
FOCUS(G) SCREEN(G)
EDC1
SCREEN (G)
FOCUS(G)
EVMG
ANODE (R)
make a loop
make double loop
CPT P. W. B. (G)
EVMR
E004
LX-ZCAT2032-0930
EVMB
EVMR
EVMG
ECV
EZV
FT
NOTE: (1) Reference FT, FOCUS (R, G, B) FS, SCREEN (R, G, B)
FOCUS PACK
ANODE (R)
ANODE (R)
ANODE (G)
ANODE (B)
ANODE (R)
PURSE LOCK ϕ11.5
N006
MR
CR
CR MR
EDC1
ECV EDC1
ECV
N006 ϕ11.5 PURSE LOCK
FOCUS(R)
FS
SCREEN (R)
EDC1
FOCUS (R)
EVMR
ECV
small
ANODE (R) ANODE (G) ANODE (B)
N003 WIRE CLAMP VO
CPT P. W. B. (R)
VM P. W. B.
WIRE CLAMP W13-20
N004
large
EDS1
EL
to Speaker (EL) (02/03) Reference
NOTE: (2) (03/03) Reference
LX-ZCAT2032-0930
E005
MR, MG, MB CR, CB, CG FT
DIGITAL CONVERGENCE UNIT
Don't stress the Anode leads.
MR, MG, MB
small
large
EDS1
MG MB MR
N004 WIRE CLAMP W13-20
FF
CR
CG
FF
CB
FT
FT, CR CB, CG
EFS
EQS1
EQS2
EZC EZV
EQS4 EQD1 EQD2
2H P. W. B.
NOTE: (3) (03/03) Reference
E002
LX-ZCAT2032-0930
SIGNAL P. W. B.
3DYC/PinP UNIT
PC UNIT
SD4
SD1
SD2
SD3
N001 SK BINDER
N003 WIRE CLAMP VO
SUB DEF P. W. B.
E003
LX-ZCAT2032-0930
EDC1
EZC
EZV
TUNER 1
TUNER 2
EPT
EQD2
EQS4
EQD1
DEFLECTION P. W. B.
FOCUS FS
B R
ANODE (R) ANODE (G) ANODE (B)
N005 PURSE LOCK ϕ8
FBT
TERMINAL P. W. B.
ANTENNA TERMINAL BOARD.
PS
POWER CORD
BACK SIDE

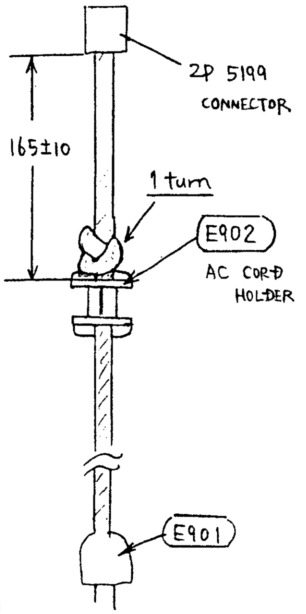
NOTE: Refer to the figure (03/page) when the HV connector (anode lead) is removed or inserted.

NOTE: Anode lead should be separated from others wires. (min. 10mm)
Anode lead must not be twisted during the operation of wiring dress.

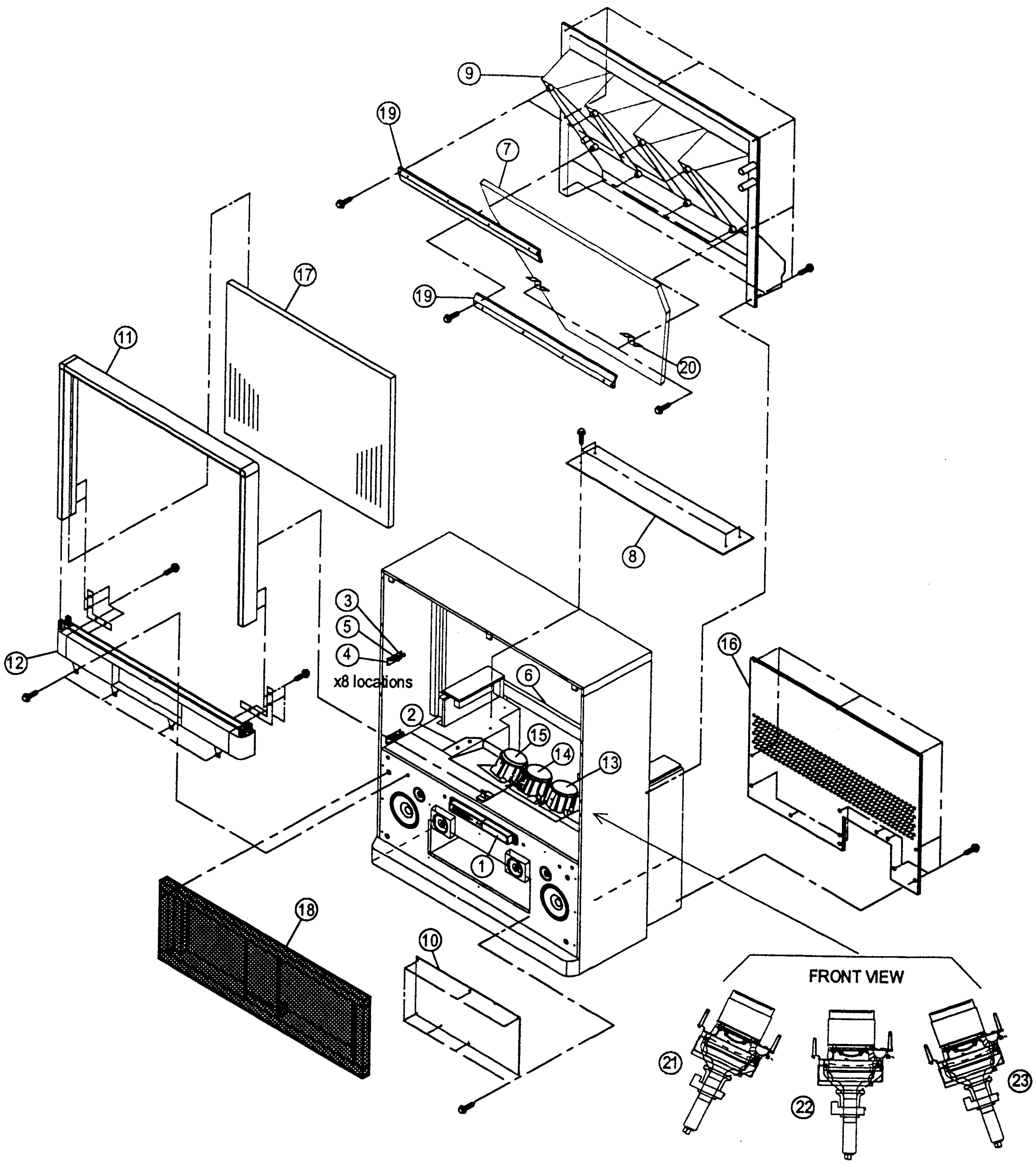
NOTE: (1)
Refer to the figure below about the assembly if FOCUS PACK leads.


SCREEN
FT
(B)
(G)
(R)
FS
(B)
(G)
(R)
FOCUS
FT, FS FOCUS (R, G, B) SCREEN (R, G, B)
FOCUS PACK
EFPK

NOTE: (6)


2P 5199 CONNECTOR
165±10
1 turn
E902
AC CORD HOLDER
E901

EXPLODED VIEW


9
19
7
17
11
19
20
8
3
5
4
x8 locations
12
6
2
16
15
14
13
1
18
10
FRONT VIEW
21
22
23

NOTES: Some parts may appear different than those shown in the Exploded View. When ordering, refer to the Replacement Parts List for correct part number. Since this Service Manual covers several models, use care to select the correct part for the model being serviced.

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

ABBREVIATIONS

Capacitors:

CD: Ceramic Disc
PF: Polyester Film
EL: Electrolytic
PP: Polypropylene
PR: Paper
TA: Tantalum
TM: Trimmer
MC: Mylar

Resistors:

CF: Carbon Film
CC: Carbon Composition
MF: Metal Oxide Film
VR: Variable Resistor
WW: Wire Wound
FR: Fuse Resistor
MG: Metal Glaze

Semiconductors:

TR: Transistor
DI: Diode
ZD: Zener Diode
VA: Varistor
TH: Thermistor
IC: Integrated Circuit

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
			C037	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE
		CAPACITORS	C038	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
			C047	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C001	0228060R	CAP 2125 CHIP 180PF-J CH 50V TAPE	C048	0800326R	CAP.-ELECTRO. 100UF-M 16V
C003	0228066R	CAPACITOR MINI-CHIP 330PF-J CH 50V TAPE	C049	0800361N	CAP.-ELECTRO 1000UF 16V
C004	0800277R	CAP.-ELECTORO. 0.47UF-M 50V	C050	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
C005	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	C051	0800326R	CAP.-ELECTRO. 100UF-M 16V
C007	0893035R	CAP2125CHIP 2200PFKB 50V TAPE	C052	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C009	0228042R	CAP 2125CHIP 33PFJCH 50V TAPE	C053	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C010	0228042R	CAP 2125CHIP 33PFJCH 50V TAPE	C059	0800361N	CAP.-ELECTRO 1000UF 16V
C011	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	C060	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C012	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C061	0800358R	CAP.-ELECTRO. 1000UF-M 6.3V
C013	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	C062	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C014	0228042R	CAP 2125CHIP 33PFJCH 50V TAPE	C070	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C015	0228042R	CAP 2125CHIP 33PFJCH 50V TAPE	C071	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C016	0800326R	CAP.-ELECTRO. 100UF-M 16V	C072	0800326R	CAP.-ELECTRO. 100UF-M 16V
C017	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C076	0800326R	CAP.-ELECTRO. 100UF-M 16V
C018	0800326R	CAP.-ELECTRO. 100UF-M 16V	C077	0800361N	CAP.-ELECTRO 1000UF 16V
C021	0228054R	CAP 2125 CHIP 100PFJCH 50V TAPE	C078	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C022	0228076R	CAPACITOR MINI-CHIP 820PF-J CH 50V TAPE	C079	0800358R	CAP.-ELECTRO. 1000UF-M 6.3V
C023	0228054R	CAP 2125 CHIP 100PFJCH 50V TAPE	C080	0893053R	CAP2125CHIP 47000PFKB 50V TAPE
C024	0228058R	CAP 2125 CHIP 150PF-J CH 50V TAPE	C081	0800361N	CAP.-ELECTRO 1000UF 16V
C025	0800315R	CAP.-ELECTRO. 47UF-M(SMG) 6.3V	C082	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C026	0800315R	CAP.-ELECTRO. 47UF-M(SMG) 6.3V	C083	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C027	0284667R	CAP.-ELECTRO. 47UF-MBPR(SME)16V	C084	0800326R	CAP.-ELECTRO. 100UF-M 16V
C028	0284667R	CAP.-ELECTRO. 47UF-MBPR(SME)16V	C085	0228070R	CAPACITOR MINI-CHIP 470PF-J CH 50V TAPE
C029	0893035R	CAP2125CHIP 2200PFKB 50V TAPE	C086	0800358R	CAP.-ELECTRO. 1000UF-M 6.3V
C030	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	C087	0893053R	CAP2125CHIP 47000PFKB 50V TAPE
C031	0800326R	CAP.-ELECTRO. 100UF-M 16V	C088	0800361N	CAP.-ELECTRO 1000UF 16V
C032	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	C089	0284667R	CAP.-ELECTRO. 47UF-MBPR(SME)16V
C033	0800326R	CAP.-ELECTRO. 100UF-M 16V	C090	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C034	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C091	0284667R	CAP.-ELECTRO. 47UF-MBPR(SME)16V
C035	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C092	0284667R	CAP.-ELECTRO. 47UF-MBPR(SME)16V

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
C093	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	C311	0228008R	CAP 2125 CHIP 8PF-C CH 50V TAPE
C094	0800326R	CAP.-ELECTRO. 100UF-M 16V	C312	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C095	0800326R	CAP.-ELECTRO. 100UF-M 16V	C313	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C096	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C314	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C097	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C315	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C098	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C316	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C099	0228070R	CAPACITOR MINI-CHIP 470PF-J CH 50V TAPE	C317	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C0A0	0228738R	CAP2125CHIP 22PFJSL 50V TAPE	C318	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
C0A1	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C319	0800352R	CAP.-ELECTRO.470UF 10V
C0A2	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C320	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C0A3	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C321	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C0C0	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C322	0800352R	CAP.-ELECTRO.470UF 10V
C0C1	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	C325	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C0C2	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	C326	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V
C0C3	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	C327	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C101	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C328	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C102	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C329	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C103	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C330	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
C104	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C333	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
C105	0893033R	CAP 2125CHIP 1500PFKB 50V TAPE	C334	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C106	0228070R	CAPACITOR MINI-CHIP 470PF-J CH 50V TAPE	C339	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C107	0800326R	CAP.-ELECTRO. 100UF-M 16V	C340	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C108	0800326R	CAP.-ELECTRO. 100UF-M 16V	C345	0800352R	CAP.-ELECTRO.470UF 10V
C109	0800326R	CAP.-ELECTRO. 100UF-M 16V	C346	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
C110	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	C401	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C111	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	C402	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C122	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C403	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C124	0228060R	CAP 2125 CHIP 180PF-J CH 50V TAPE	C404	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C126	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C405	0890087R	CAP.-CERAMIC 1000PF-K 50V
C127	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C406	0890087R	CAP.-CERAMIC 1000PF-K 50V
C128	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C407	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C133	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C408	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C134	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C409	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C135	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C410	0800318R	CAP.-ELECTRO. 47UF-M 25V
C136	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C411	0800318R	CAP.-ELECTRO. 47UF-M 25V
C137	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C412	0284824F	CAP.-ELECTRO. 2200UF 35V SMG
C138	0800351R	CAP.-ELECTRO. 470UF-M 6.3V	C413	0880198R	CAP.-PLOY. 0.22UF-J 50V
C139	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C414	0800327R	CAP.-ELECTRO. 100UF-M 25V
C140	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C415	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C141	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C416	0800363N	CAP.-ELECTRO. 1000UF 35V
C142	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	C417	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C143	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	C418	0800363N	CAP.-ELECTRO. 1000UF 35V
C144	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	C419	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C208	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	C420	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C209	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C421	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C210	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	C422	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C301	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C423	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C302	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C424	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C303	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C425	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C304	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	C426	0890087R	CAP.-CERAMIC 1000PF-K 50V
C305	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C427	0890087R	CAP.-CERAMIC 1000PF-K 50V
C306	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C428	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C307	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	C429	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C308	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	C430	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C309	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	C431	0800318R	CAP.-ELECTRO. 47UF-M 25V
C310	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V	C432	0800318R	CAP.-ELECTRO. 47UF-M 25V

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
C433	0800327R	CAP.-ELECTRO. 100UF-M 25V
C434	0800327R	CAP.-ELECTRO. 100UF-M 25V
C435	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C436	0800363N	CAP.-ELECTRO. 1000UF 35V
C437	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C438	0880198R	CAP.-PLOY. 0.22UF-J 50V
C439	0284824F	CAP.-ELECTRO. 2200UF 35V SMG
C440	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C441	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C442	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C443	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C444	0890087R	CAP.-CERAMIC 1000PF-K 50V
C445	0890087R	CAP.-CERAMIC 1000PF-K 50V
C446	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C447	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C448	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C449	0800318R	CAP.-ELECTRO. 47UF-M 25V
C450	0800318R	CAP.-ELECTRO. 47UF-M 25V
C451	0800327R	CAP.-ELECTRO. 100UF-M 25V
C452	0284824F	CAP.-ELECTRO. 2200UF 35V SMG
C453	0880198R	CAP.-PLOY. 0.22UF-J 50V
C454	0800327R	CAP.-ELECTRO. 100UF-M 25V
C455	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C456	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C457	0800363N	CAP.-ELECTRO. 1000UF 35V
C458	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C459	0800363N	CAP.-ELECTRO. 1000UF 35V
C460	0800327R	CAP.-ELECTRO. 100UF-M 25V
C461	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C462	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C463	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C464	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C465	0800363N	CAP.-ELECTRO. 1000UF 35V
C466	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C467	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C468	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C469	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C470	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C471	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C472	0800363N	CAP.-ELECTRO. 1000UF 35V
C473	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C474	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C475	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C476	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C477	0800363N	CAP.-ELECTRO. 1000UF 35V
C478	0258616	CAP.-ELECTRO 2.2UF-M 50V
C479	0258616	CAP.-ELECTRO 2.2UF-M 50V
C601	0800344R	CAP.-ELECTRO. 330UF-M(SMG) 16V
C602	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C603	0800344R	CAP.-ELECTRO. 330UF-M(SMG) 16V
C604	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C605	0800347N	CAP.-ELECTRO. 330UF-M(SMG) 50V
C608	0880198R	CAP.-PLOY. 0.22UF-J 50V
C613	0890066R	CAP.CERAMIC 27PF-J 50V
C651	0800326R	CAP.-ELECTRO. 100UF-M 16V
C653	AN00626R	CAP.POLYESTER 0.015UF 50V TAPE

SYMBOL NO.	PART NO.	PART DESCRIPTION
C654	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C655	0880198R	CAP.-PLOY. 0.22UF-J 50V
C656	0244501R	CAP.-CERAMIC 1000PF-K 500V
C657	0244507R	CAP.-CERAMIC 3300PF-KB B 500V
⚠ C658	0299975F	CAP-POLYPROPYLENE 0.0033MF 630V
⚠ C659	0299975F	CAP-POLYPROPYLENE 0.0033MF 630V
⚠ C660	0299973F	CAP.-POLYPROPYLENE 0.0022MF 630V
C661	0259471	CAP.-ELECTRO 6.8UF-M (BP) 50V
C662	0259471	CAP.-ELECTRO 6.8UF-M (BP) 50V
C670	0259471	CAP.-ELECTRO 6.8UF-M (BP) 50V
C671	0259471	CAP.-ELECTRO 6.8UF-M (BP) 50V
C701	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C702	0800326R	CAP.-ELECTRO. 100UF-M 16V
C703	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C704	0800326R	CAP.-ELECTRO. 100UF-M 16V
C705	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE
C706	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C707	0800282R	CAP.-ELECTORO. 2.2UF-M(SMG) 50V
C708	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C709	0800344R	CAP.-ELECTRO. 330UF-M(SMG) 16V
C710	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
C711	AN00622R	CAP.POLYESTER 0.0068UF 50V TAPE
C712	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C713	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C714	0800282R	CAP.-ELECTORO. 2.2UF-M(SMG) 50V
C715	AN00611R	CAP.POLYSTYLENE 0.001UF 50V TAPE
C716	AN00622R	CAP.POLYESTER 0.0068UF 50V TAPE
C717	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C718	0800303R	CAP.-ELECTRO. 22UF-M 50V
C719	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
C720	0890074R	CAP.-CERAMIC 100PF-J 50V
C721	0228054R	CAP 2125 CHIP 100PFJCH 50V TAPE
C723	0228054R	CAP 2125 CHIP 100PFJCH 50V TAPE
C724	0228054R	CAP 2125 CHIP 100PFJCH 50V TAPE
C752	0244505R	CAP-CERAMIC 0.0022UF-K 500V
C753	0243503R	CAP.-CERAMIC 150PF-K B 500V
C754	0251703	CAP.ELECTRO 390UF-M 160V(KMH)
C755	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C756	0890081R	CAP.-CERAMIC 330PF 50V
⚠ C758	AN01131F	METALLIZ PP FILM CAP0.0056UF
⚠ C759	AN01131F	METALLIZ PP FILM CAP0.0056UF
⚠ C760	AN01128F	METALLIZ PP FILM CAP0.0047UF
C762	AN01178F	METALLIZ PP FILM CAP0.47UF
C763	AN01178F	METALLIZ PP FILM CAP0.47UF
C765	0244505R	CAP-CERAMIC 0.0022UF-K 500V
C766	0244505R	CAP-CERAMIC 0.0022UF-K 500V
C767	0284677R	CAP.-ELECTORO. 100UF-M (BP) 16V
C768	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
C769	0800323R	CAP.-ELECTRO. 47UF-M 100V
C770	AJ00132R	CAPACITOR CERAMIC 680P DC2K-R
C771	AJ00132R	CAPACITOR CERAMIC 680P DC2K-R
C772	0244505R	CAP-CERAMIC 0.0022UF-K 500V
C773	0284634R	CAP.-ELECTRO 4.7UF-SME(BP) 50V
C777	AL00793S	CAP.EL.S-LEAD 1200UF-M(LXV) 16V
C801	0890079R	CAP.-CERAMIC 270PF-K 50V
C802	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
C803	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C804	0299622F	CAP-POLYPROPYLENE FILM 0.01UF-J 630V
C805	AL00031R	CAP.-ELECTORO. 33UF-M 250V
C807	0800353R	CAP.-ELECTRO.470UF-M 16V
C812	AJ00559	CAPACITOT CERAMIC 2200PF2KV
C813	AL00025R	ALUMINIUM ELECTROLYTIC CAP(22UF250V)
C814	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C816	0890087R	CAP.-CERAMIC 1000PF-K 50V
C851	0890078R	CAP.-CERAMIC 220PF-K 50V
C852	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C853	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C854	AJ00001R	CAP.CERAMIC 0.01UF-Z 500V
C857	0800353R	CAP.-ELECTRO.470UF-M 16V
C860	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
C862	AJ00559	CAPACITOT CERAMIC 2200PF2KV
C863	AL00025R	ALUMINIUM ELECTROLYTIC CAP(22UF250V)
C864	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C865	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
C866	0890087R	CAP.-CERAMIC 1000PF-K 50V
C8A1	0890075R	CAP.-CERAMIC 120PF-K 50V
C8A2	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
C8A3	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C8A4	AJ00001R	CAP.CERAMIC 0.01UF-Z 500V
C8A7	0800353R	CAP.-ELECTRO.470UF-M 16V
C8A8	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C8C0	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
C8C1	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C8C2	AJ00559	CAPACITOT CERAMIC 2200PF2KV
C8C3	AL00025R	ALUMINIUM ELECTROLYTIC CAP(22UF250V)
C8C4	0890087R	CAP.-CERAMIC 1000PF-K 50V
⚠ C901	AN00148S	PLASTIC FILM CAPACITOR(0.22UF250V)
⚠ C902	AN00144S	PLASTIC FILM CAPACITOR(0.1UF250V)
⚠ C903	0248593F	CAP.-CERAMIC 4700PF-Z 250V
⚠ C904	0248593F	CAP.-CERAMIC 4700PF-Z 250V
C905	0284292	CAP.ELECTRO 330UF-M 250V(KMH)
C906	0284292	CAP.ELECTRO 330UF-M 250V(KMH)
C914	0800329R	CAP.-ELECTRO. 100UF-M(SMG) 50V
C915	0299975F	CAP-POLYPROPYLENE 0.0033MF 630V
C917	0890085R	CAP.-CERAMIC 680PF-K 50V
C918	0800282R	CAP.-ELECTORO. 2.2UF-M(SMG) 50V
C919	0880016R	CAP.-POLYESTER FILM 0.1UF 50V
⚠ C925	0248593F	CAP.-CERAMIC 4700PF-Z 250V
⚠ C926	0248593F	CAP.-CERAMIC 4700PF-Z 250V
⚠ C927	AJ00157R	CAPACITOR CERAMIC 1000P 400V B
C928	2974432M	JUMPER WIRE (0.5 L=52MM)
C929	2974432M	JUMPER WIRE (0.5 L=52MM)
⚠ C930	AJ00163R	CAPACITOR CERAMIC 2200P 400V E
C931	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
C932	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
C933	0880062R	CAP.-POLYESTER 0.22UF-KEB 50V
C934	0880062R	CAP.-POLYESTER 0.22UF-KEB 50V
C935	0880009R	CAP.-POLYESTER 0.01UF-K 50V
C936	0244105R	CAP.-CERAMIC 2200PF-K 50V TAPE
C938	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
C939	0800328R	CAP. ELECTRO. 100UF-M 35V
C940	0800356N	CAP.-ELECTRO. 470UF-M 50V

SYMBOL NO.	PART NO.	PART DESCRIPTION
C941	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
C943	0800355N	CAP.ELECTRO. 470UF-M 35V
C944	AL00793S	CAP.EL.S-LEAD 1200UF-M(LXV) 16V
C945	0800355N	CAP.ELECTRO. 470UF-M 35V
C946	AL00792S	CAP.-EL.S-LEAD 2200UF-M(LXV) 10V
C957	0880044R	CAP.-POLYESTER 0.01UF-KEB 50V
C958	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
C960	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
C961	0800328R	CAP. ELECTRO. 100UF-M 35V
C963	0880016R	CAP.-POLYESTER FILM 0.1UF 50V
C967	0800355N	CAP.ELECTRO. 470UF-M 35V
C968	AL00952S	ALUMINIUM ELEC. CAP(4700UF6.3V)
C969	AL00952S	ALUMINIUM ELEC. CAP(4700UF6.3V)
C970	AL00792S	CAP.-EL.S-LEAD 2200UF-M(LXV) 10V
C977	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
C978	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
C979	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
C980	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
CA01	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA02	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA03	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA04	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA05	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA06	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA07	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA08	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA09	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA10	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CA11	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
CA12	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
CE01	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
CE02	0800321R	CAP.-ELECTRO. 47UF-M 50V
CE03	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CE04	0890066R	CAP.CERAMIC 27PF-J 50V
CE05	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CE06	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
CE07	0890061R	CAP.-CERAMIC 10PF- 50V
CE09	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CE10	0800321R	CAP.-ELECTRO. 47UF-M 50V
CE13	0244541F	CAPACITOR-CERAMIC 0.01MF-K B 500V
CE14	0244541F	CAPACITOR-CERAMIC 0.01MF-K B 500V
CE15	AN00619R	CAP.POLYESTER 0.0047UF 50V TAPE
CE16	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
CE24	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
CE25	AL00027R	CAP.-ELECTORO. 4.7UF-M 250V
CE26	0284455R	CEL-101M500WMLT-KMF
CE27	0284455R	CEL-101M500WMLT-KMF
CE28	0800303R	CAP.-ELECTRO. 22UF-M 50V
CE29	0800303R	CAP.-ELECTRO. 22UF-M 50V
CE30	0247848R	CAP.-CERAMIC 56PF-J SL 500V
CE31	0247848R	CAP.-CERAMIC 56PF-J SL 500V
CE32	AL00032R	ALUMINIUM ELECTROLYTIC CAP(2.2UF350V)
CE33	0244541F	CAPACITOR-CERAMIC 0.01MF-K B 500V
CF01	0800326R	CAP.-ELECTRO. 100UF-M 16V
CF02	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CF03	AN00631R	CAP.POLYESTER 0.033UF 50V TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CF04	0880196R	CAP.-POLYESTER 0.15UF 50V HFT	CG45	0800326R	CAP.-ELECTRO. 100UF-M 16V
CF05	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG46	0800353R	CAP.-ELECTRO.470UF-M 16V
CF06	0800326R	CAP.-ELECTRO. 100UF-M 16V	CG47	0800326R	CAP.-ELECTRO. 100UF-M 16V
CF07	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CG48	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
CF08	AN00614R	CAP.POLYESTER 0.0018UF 50V TAPE	CG49	0284621R	CAP.-ELECTRO. 0.47UF 50V (BP)
CF09	0245156	CAPACITOT CERAMIC 22PF/2KV	CG50	0893052R	CAP2125CHIP 39000PFKB 50V TAPE
CF10	AN01111F	METALLIZ PP FILM CAP0.001UF	CG51	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
CF11	0255520R	CAP.-ELECTRO 0.47UF 250V(KME)	CG52	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V
CF12	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG53	0893026R	CAP 2125CHIP 82000PFKB 25V TAPE
CF13	0245158	CAPACITOT CERAMIC 68PF/2KV	CG54	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE
CF14	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG55	0893046R	CAP2125CHIP 15000PFKB50V TAPE
CF18	AN01137F	METALLIZ PP FILM CAP0.01UF	CG56	0880062R	CAP.-POLYESTER 0.22UF-KEB 50V
CG01	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG57	0893017R	CAP 2125CHIP 18000PFKB 25V TAPE
CG02	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG58	0893032R	CAP 2125CHIP 1200PFKB 50V TAPE
CG03	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG59	0893037R	CAP 2125CHIP 3300PFKB 50V TAPE
CG04	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CG60	0893052R	CAP2125CHIP 39000PFKB 50V TAPE
CG05	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CG61	0228772R	CAP2125CHIP 560PFJSL 50V TAPE
CG06	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CG62	0893043R	CAP 2125CHIP 8200PFKB 50V TAPE
CG07	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	CH01	0800326R	CAP.-ELECTRO. 100UF-M 16V
CG08	0800326R	CAP.-ELECTRO. 100UF-M 16V	CH02	0249093R	CAPACITOR-CERAMIC 470PF-J SL 50WV
CG09	0800353R	CAP.-ELECTRO.470UF-M 16V	CH03	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CG10	0800326R	CAP.-ELECTRO. 100UF-M 16V	CH04	0299015R	CAP.-POLY. 3900PF-G 100V
CG11	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	CH05	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
CG12	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V	CH06	AN00619R	CAP.POLYESTER 0.0047UF 50V TAPE
CG13	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	CH07	0890074R	CAP.-CERAMIC 100PF-J 50V
CG14	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	CH08	AN00613R	CAP.POLYESTER 0.0015UF 50V TAPE
CG15	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V	CH09	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
CG16	0284621R	CAP.-ELECTRO. 0.47UF 50V (BP)	CH10	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CG17	0893052R	CAP2125CHIP 39000PFKB 50V TAPE	CH11	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
CG18	0893052R	CAP2125CHIP 39000PFKB 50V TAPE	CH12	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE
CG19	0284621R	CAP.-ELECTRO. 0.47UF 50V (BP)	CH13	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
CG20	0880062R	CAP.-POLYESTER 0.22UF-KEB 50V	⚠ CH15	AN01119F	METALLIZ PP FILM CAP0.0022UF
CG21	0893046R	CAP2125CHIP 15000PFKB50V TAPE	CH17	0251709	CAP.ELECTRO 680UF 160V (KMH)
CG22	0893046R	CAP2125CHIP 15000PFKB50V TAPE	CH18	0800329R	CAP.-ELECTRO. 100UF-M(SMG) 50V
CG23	0880062R	CAP.-POLYESTER 0.22UF-KEB 50V	CH19	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V
CG24	0893026R	CAP 2125CHIP 82000PFKB 25V TAPE	CH20	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CG25	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CH21	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CG26	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	⚠ CH23	AN00622R	CAP.POLYESTER 0.0068UF 50V TAPE
CG27	0893026R	CAP 2125CHIP 82000PFKB 25V TAPE	CH24	0890074R	CAP.-CERAMIC 100PF-J 50V
CG28	0893052R	CAP2125CHIP 39000PFKB 50V TAPE	CH25	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CG29	0893037R	CAP 2125CHIP 3300PFKB 50V TAPE	⚠ CH28	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CG30	0893037R	CAP 2125CHIP 3300PFKB 50V TAPE	CH29	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CG31	0893052R	CAP2125CHIP 39000PFKB 50V TAPE	CH30	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CG32	0893017R	CAP 2125CHIP 18000PFKB 25V TAPE	CH31	0880198R	CAP.-PLOY. 0.22UF-J 50V
CG33	0893032R	CAP 2125CHIP 1200PFKB 50V TAPE	CH36	0890069R	CAP.-CERAMIC 47PF-J 50V
CG34	0893032R	CAP 2125CHIP 1200PFKB 50V TAPE	CH37	AN00616R	CAP.POLYESTER 0.0027UF 50V TAPE
CG35	0893017R	CAP 2125CHIP 18000PFKB 25V TAPE	CH42	0890074R	CAP.-CERAMIC 100PF-J 50V
CG36	0893043R	CAP 2125CHIP 8200PFKB 50V TAPE	CK01	0800353R	CAP.-ELECTRO.470UF-M 16V
CG37	0228772R	CAP2125CHIP 560PFJSL 50V TAPE	CK02	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CG38	0228772R	CAP2125CHIP 560PFJSL 50V TAPE	CK03	0800326R	CAP.-ELECTRO. 100UF-M 16V
CG39	0893043R	CAP 2125CHIP 8200PFKB 50V TAPE	CK04	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CG40	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CK05	0800326R	CAP.-ELECTRO. 100UF-M 16V
CG41	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CK06	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CG42	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CK07	0800326R	CAP.-ELECTRO. 100UF-M 16V
CG43	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	CK08	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CG44	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	CK09	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CK10	0800326R	CAP.-ELECTRO. 100UF-M 16V	CN05	0800326R	CAP.-ELECTRO. 100UF-M 16V
CK11	0890074R	CAP.-CERAMIC 100PF-J 50V	CN06	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V
CK12	0890076R	CAP.CERAMIC 150PF-K 50V	CN09	AN00615R	CAP.POLYESTER 0.0022UF 50V TAPE
CK13	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP01	0284296	CAP.ELECTRO 680UF-M 250V(KMH)
CK14	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP02	0284296	CAP.ELECTRO 680UF-M 250V(KMH)
CK15	AN00611R	CAP.POLYSTYLENE 0.001UF 50V TAPE	CP05	0800329R	CAP.-ELECTRO. 100UF-M(SMG) 50V
CK16	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP06	0299977F	CAP-PP FILM 0.0047UF-F 630V
CK17	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP07	0800282R	CAP.-ELECTORO. 2.2UF-M(SMG) 50V
CK18	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CP08	0890085R	CAP.-CERAMIC 680PF-K 50V
CK19	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CP10	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CK20	0890076R	CAP.CERAMIC 150PF-K 50V	CP11	0284291	CEL-221M251WMT(KMH)
CK21	0890076R	CAP.CERAMIC 150PF-K 50V	CP12	0299610F	CAP.-POLYPRO.FILM 0.001UF 630V
CK22	0890087R	CAP.-CERAMIC 1000PF-K 50V	CP13	AL00791S	CAP.-EL.S-LEAD 1500UF-M(LXV) 10V
CK23	0890076R	CAP.CERAMIC 150PF-K 50V	CP14	AL00795S	CAP.EL.S-LEAD 2200UF-M(LXV) 16V
CK24	0890076R	CAP.CERAMIC 150PF-K 50V	CP15	AL00795S	CAP.EL.S-LEAD 2200UF-M(LXV) 16V
CK25	0890076R	CAP.CERAMIC 150PF-K 50V	CP16	0251704	CAP.ELECTRO 470UF-M 160V(KMH)
CK27	0800356N	CAP.-ELECTRO. 470UF-M 50V	CP17	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
CK28	0800356N	CAP.-ELECTRO. 470UF-M 50V	CP18	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
CK29	0890076R	CAP.CERAMIC 150PF-K 50V	CP19	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CK30	0890076R	CAP.CERAMIC 150PF-K 50V	CP20	0800352R	CAP.-ELECTRO.470UF 10V
CK31	0890076R	CAP.CERAMIC 150PF-K 50V	CP21	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CK32	0890076R	CAP.CERAMIC 150PF-K 50V	CP22	0800353R	CAP.-ELECTRO.470UF-M 16V
CK33	0890076R	CAP.CERAMIC 150PF-K 50V	CP23	AL00794S	CAP.-EL.S-LEAD 1500UF-M(LXV) 16V
CK34	0890076R	CAP.CERAMIC 150PF-K 50V	CP24	0800353R	CAP.-ELECTRO.470UF-M 16V
CK36	0800355N	CAP.ELECTRO. 470UF-M 35V	CP25	0800353R	CAP.-ELECTRO.470UF-M 16V
CK37	0800355N	CAP.ELECTRO. 470UF-M 35V	CP26	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
CK38	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP27	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V
CK39	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP28	0880198R	CAP.-PLOY. 0.22UF-J 50V
CK40	0800353R	CAP.-ELECTRO.470UF-M 16V	CP29	0880198R	CAP.-PLOY. 0.22UF-J 50V
CK41	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP30	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CL01	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	CP31	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CL02	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	CP32	0800326R	CAP.-ELECTRO. 100UF-M 16V
CL03	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	CP33	0800361N	CAP.-ELECTRO 1000UF 16V
CL04	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	CP34	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CL05	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	CP35	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CL06	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	CP36	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE
CL07	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	⚠ CP37	AJ00157R	CAPACITOR CERAMIC 1000P 400V B
CL08	AN00633R	CAP.POLYESTER 0.047UF 50V TAPE	⚠ CP38	AJ00157R	CAPACITOR CERAMIC 1000P 400V B
CL09	0800326R	CAP.-ELECTRO. 100UF-M 16V	CP39	0800328R	CAP. ELECTRO. 100UF-M 35V
CL10	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP40	0800355N	CAP.ELECTRO. 470UF-M 35V
CM01	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V	CP41	0800355N	CAP.ELECTRO. 470UF-M 35V
CM02	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CP42	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
CM03	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	CP43	AL00796S	CAP.EL.S-LEAD 1200UF-M(LXV) 35V
CM04	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CP44	0244202R	CAP.-CERAMIC 470PF-K 2KV
CM05	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CP45	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
CM06	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CP46	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
CM09	AN00624R	CAP.POLYESTER 0.01UF 50V TAPE	CP47	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
CM10	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CP48	0244202R	CAP.-CERAMIC 470PF-K 2KV
CM11	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CP49	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
CM12	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	CP50	0243511R	CAP.-CERAMIC 680PF-K 500V TAPE
CM14	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CS01	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CM15	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	CS02	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CN01	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	CS03	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CN02	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V	CS04	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CN03	AN00631R	CAP.POLYESTER 0.033UF 50V TAPE	CS05	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CN04	0890084R	CAP.-CERAMIC 560PF-K 50V	CS06	0893053R	CAP2125CHIP 47000PFKB 50V TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CS08	0800361F	CAP.-ELECTRO. 1000UF-M(SMG) 16V	CS66	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS09	0800326R	CAP.-ELECTRO. 100UF-M 16V	CS67	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CS10	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	CS68	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CS11	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CS69	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
CS12	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CS70	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
CS13	0893051R	CAP2125CHIP 33000PFKB 50V TAPE	CS71	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS14	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CS72	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS16	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS73	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS17	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE	CS74	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS18	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS75	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
CS19	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE	CS76	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CS20	0893051R	CAP2125CHIP 33000PFKB 50V TAPE	CS77	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS21	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CS78	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS23	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CS79	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
CS24	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS80	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CS25	0800326R	CAP.-ELECTRO. 100UF-M 16V	CS81	0800326R	CAP.-ELECTRO. 100UF-M 16V
CS26	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS82	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS27	0800361F	CAP.-ELECTRO. 1000UF-M(SMG) 16V	CS83	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS28	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	CS84	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS29	0893051R	CAP2125CHIP 33000PFKB 50V TAPE	CS85	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS30	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CS86	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS31	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS87	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS32	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE	CS88	0800277R	CAP.-ELECTORO. 0.47UF-M 50V
CS33	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CS89	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V
CS34	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE	CS90	0800277R	CAP.-ELECTORO. 0.47UF-M 50V
CS35	0893051R	CAP2125CHIP 33000PFKB 50V TAPE	CS91	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V
CS36	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CS92	0880059R	CAP.-POLYESTER 0.15UF-KEB 50V
CS37	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS93	0800284R	CAP.-ELECTRO. 3.3UF-M(SMG) 50V
CS38	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS94	0880059R	CAP.-POLYESTER 0.15UF-KEB 50V
CS39	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CS95	0880059R	CAP.-POLYESTER 0.15UF-KEB 50V
CS40	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS96	0800284R	CAP.-ELECTRO. 3.3UF-M(SMG) 50V
CS41	0800326R	CAP.-ELECTRO. 100UF-M 16V	CS97	0284634R	CAP.-ELECTRO 4.7UF-SME(BP) 50V
CS42	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CS98	0284634R	CAP.-ELECTRO 4.7UF-SME(BP) 50V
CS43	0800361F	CAP.-ELECTRO. 1000UF-M(SMG) 16V	CSA1	0880059R	CAP.-POLYESTER 0.15UF-KEB 50V
CS44	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	CSA2	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V
CS45	0893051R	CAP2125CHIP 33000PFKB 50V TAPE	CSA3	0800277R	CAP.-ELECTORO. 0.47UF-M 50V
CS46	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CSA4	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V
CS47	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CSA5	0800277R	CAP.-ELECTORO. 0.47UF-M 50V
CS48	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE	CSA6	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
CS49	0893031R	CAP 2125CHIP 1000PFKB 50V TAPE	CSA7	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE
CS50	0893051R	CAP2125CHIP 33000PFKB 50V TAPE	CSA8	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V
CS51	0893041R	CAP 2125CHIP 5600PFKB 50V TAPE	CSA9	0880203R	CAP.-POLYESTER 0.47UF-J 50V
CS52	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CSC1	0228774R	CAPACITOR MINI-CHIP 680PF-J SL 50V TAPE
CS53	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CSC2	0800326R	CAP.-ELECTRO. 100UF-M 16V
CS54	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CSC3	0893053R	CAP2125CHIP 47000PFKB 50V TAPE
CS55	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	CSC4	0800282R	CAP.-ELECTORO. 2.2UF-M(SMG) 50V
CS56	0893048R	CAP2125CHIP 22000PFKB 50V TAPE	CSC5	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CS57	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	CSC6	0893053R	CAP2125CHIP 47000PFKB 50V TAPE
CS58	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V	CSC7	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V
CS59	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CSC8	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V
CS60	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CSC9	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V
CS61	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CSE1	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V
CS62	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CSE2	0893044R	CAP2125CHIP 10000PFKB 50V TAPE
CS63	0800288R	CAP.-ELECTRO. 4.7UF-M(SMG) 50V	CSE3	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V
CS64	0800326R	CAP.-ELECTRO. 100UF-M 16V	CSE4	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V
CS65	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	CSE5	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
CSE6	0893051R	CAP2125CHIP 33000PFKB 50V TAPE			
CSE7	0893033R	CAP 2125CHIP 1500PFKB 50V TAPE			
CSE8	0893051R	CAP2125CHIP 33000PFKB 50V TAPE			**DIODES**
CSE9	0800335R	CAP.-ELECTRO. 220UF-M(SMG) 16V			
CSF1	0228041R	CAPACITOR MINI-CHIP 30PF-J CH 50V TAPE	D003	2344041M	DIODE 1SS254TA/1SS270TA
CSF2	0228041R	CAPACITOR MINI-CHIP 30PF-J CH 50V TAPE	D004	2344041M	DIODE 1SS254TA/1SS270TA
CSF3	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	D005	2344041M	DIODE 1SS254TA/1SS270TA
CSF4	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	D006	2344041M	DIODE 1SS254TA/1SS270TA
CSF5	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	D007	2344041M	DIODE 1SS254TA/1SS270TA
CSF6	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	D008	2344041M	DIODE 1SS254TA/1SS270TA
CSF7	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	D009	2344041M	DIODE 1SS254TA/1SS270TA
CSF8	0800291R	CAP.-ELECTRO. 10UF-M(SMG) 16V	D010	2348102M	ZENER MTZJ-5.1B TA
CSG1	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	D012	2348212M	DIO-MTZ-J15BTA
CSG2	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	D013	2348212M	DIO-MTZ-J15BTA
CSG4	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	D014	2348212M	DIO-MTZ-J15BTA
CSG5	0893027R	CAP 2125 CHIP 100000PF-K B 25V TAPE	D015	2348212M	DIO-MTZ-J15BTA
CSG6	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	D016	2348212M	DIO-MTZ-J15BTA
CX10	0284625R	CAP.-ELECTRO. 2.2UF-SME(BP)50V	D017	2348212M	DIO-MTZ-J15BTA
CX11	0284625R	CAP.-ELECTRO. 2.2UF-SME(BP)50V	D018	2331827M	ZENER DIODE HZ-9 TAPE (C1) SI 500MW 9.3V
CX12	0284638R	CAP.-ELECTRO. 10UF-SME(BP) 16V	D019	2331827M	ZENER DIODE HZ-9 TAPE (C1) SI 500MW 9.3V
CX15	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D020	2344041M	DIODE 1SS254TA/1SS270TA
CX16	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D021	2344041M	DIODE 1SS254TA/1SS270TA
CX19	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D022	2344041M	DIODE 1SS254TA/1SS270TA
CX20	0800299R	CAP.-ELECTRO. 22UF-M(SMG) 16V	D023	2344041M	DIODE 1SS254TA/1SS270TA
CX21	0800294R	CAP.-ELECTRO. 10UF-M(SMG) 50V	D025	2344041M	DIODE 1SS254TA/1SS270TA
CX24	0284634R	CAP.-ELECTRO 4.7UF-SME(BP) 50V	D030	2344041M	DIODE 1SS254TA/1SS270TA
CX25	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D031	2344041M	DIODE 1SS254TA/1SS270TA
CX26	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D032	2344041M	DIODE 1SS254TA/1SS270TA
CX27	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D033	2348212M	DIO-MTZ-J15BTA
CX28	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D034	2344041M	DIODE 1SS254TA/1SS270TA
CX29	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D035	2335991M	ZENER HZ-T33 (02 TP)
CX30	0800277R	CAP.-ELECTORO. 0.47UF-M 50V	D036	2335991M	ZENER HZ-T33 (02 TP)
CX31	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D037	2348212M	DIO-MTZ-J15BTA
CX32	0800282R	CAP.-ELECTORO. 2.2UF-M(SMG) 50V	D038	2344041M	DIODE 1SS254TA/1SS270TA
CX33	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D039	2348163M	ZENER MTZJ-9.1C TA
CX34	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D305	2344041M	DIODE 1SS254TA/1SS270TA
CX35	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D401	2348212M	DIO-MTZ-J15BTA
CX36	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D402	2348212M	DIO-MTZ-J15BTA
CX37	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	D403	2348212M	DIO-MTZ-J15BTA
CX38	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D405	2348212M	DIO-MTZ-J15BTA
CX39	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D406	2348212M	DIO-MTZ-J15BTA
CX40	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D407	2348212M	DIO-MTZ-J15BTA
CX41	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D408	2348212M	DIO-MTZ-J15BTA
CX46	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D409	2348212M	DIO-MTZ-J15BTA
CX47	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D410	2348212M	DIO-MTZ-J15BTA
CX48	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	D411	2348212M	DIO-MTZ-J15BTA
CX49	0800324R	CAP.-ELECTRO. 100UF-M(SMG) 6.3V	D412	2344041M	DIODE 1SS254TA/1SS270TA
CX50	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D413	2344041M	DIODE 1SS254TA/1SS270TA
CX51	0893044R	CAP2125CHIP 10000PFKB 50V TAPE	D414	2344041M	DIODE 1SS254TA/1SS270TA
CX52	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D415	2344041M	DIODE 1SS254TA/1SS270TA
CX53	0893053R	CAP2125CHIP 47000PFKB 50V TAPE	D416	2344041M	DIODE 1SS254TA/1SS270TA
CX56	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D417	2344041M	DIODE 1SS254TA/1SS270TA
CX57	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D418	2344041M	DIODE 1SS254TA/1SS270TA
CX63	0284623R	CAP.-ELECTRO. 1UF-SME(BP) 50V	D419	2344041M	DIODE 1SS254TA/1SS270TA
CX65	AN00637R	CAP.POLYESTER 0.1UF 50V TAPE	D420	2344041M	DIODE 1SS254TA/1SS270TA
CX66	0800317R	CAP.-ELECTRO. 47UF-M(SMG) 16V	D421	2344041M	DIODE 1SS254TA/1SS270TA
CX69	0800279R	CAP.-ELECTORO. 1.0UF-M(SMG) 50V	D422	2344041M	DIODE 1SS254TA/1SS270TA

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
D423	2344041M	DIODE 1SS254TA/1SS270TA	D853	2344041M	DIODE 1SS254TA/1SS270TA
D424	2344041M	DIODE 1SS254TA/1SS270TA	D854	2344041M	DIODE 1SS254TA/1SS270TA
D425	2344041M	DIODE 1SS254TA/1SS270TA	D856	2344041M	DIODE 1SS254TA/1SS270TA
D426	2344041M	DIODE 1SS254TA/1SS270TA	D858	2344041M	DIODE 1SS254TA/1SS270TA
D427	2344041M	DIODE 1SS254TA/1SS270TA	D863	2348432M	DIODE RMPG06G
D428	2344041M	DIODE 1SS254TA/1SS270TA	D864	2348432M	DIODE RMPG06G
D429	2344041M	DIODE 1SS254TA/1SS270TA	D865	2348432M	DIODE RMPG06G
D430	2344041M	DIODE 1SS254TA/1SS270TA	D866	2348432M	DIODE RMPG06G
D431	2344041M	DIODE 1SS254TA/1SS270TA	D8A2	2344041M	DIODE 1SS254TA/1SS270TA
D432	2344041M	DIODE 1SS254TA/1SS270TA	D8A3	2344041M	DIODE 1SS254TA/1SS270TA
D433	2344041M	DIODE 1SS254TA/1SS270TA	D8A4	2344041M	DIODE 1SS254TA/1SS270TA
D434	2344041M	DIODE 1SS254TA/1SS270TA	D8A5	2344041M	DIODE 1SS254TA/1SS270TA
D435	2344041M	DIODE 1SS254TA/1SS270TA	D8A6	2344041M	DIODE 1SS254TA/1SS270TA
D436	2344041M	DIODE 1SS254TA/1SS270TA	D8C3	2348432M	DIODE RMPG06G
D437	2344041M	DIODE 1SS254TA/1SS270TA	D8C4	2348432M	DIODE RMPG06G
D438	2344041M	DIODE 1SS254TA/1SS270TA	D8C5	2348432M	DIODE RMPG06G
D439	2344041M	DIODE 1SS254TA/1SS270TA	D8C6	2348432M	DIODE RMPG06G
D440	2344041M	DIODE 1SS254TA/1SS270TA	⚠ D901	2338313	DIODE RBV-406M (60V) SI 0.1USEC
D441	2344041M	DIODE 1SS254TA/1SS270TA	⚠ D903	2338313	DIODE RBV-406M (60V) SI 0.1USEC
D602	CH00151M	DIODE DSM1SD2(200V)TAPE	D905	CH00172M	DIODE DFM1SD2(200V)TAPE
D603	CH00151M	DIODE DSM1SD2(200V)TAPE	D906	CH00172M	DIODE DFM1SD2(200V)TAPE
D604	CH00151M	DIODE DSM1SD2(200V)TAPE	D907	2331844M	ZENER HZ12-B1
D605	CH00151M	DIODE DSM1SD2(200V)TAPE	D908	CH00183R	LIGHT EMITTING DIODE (SLZ-981C-06-T1)
D606	2348212M	DIO-MTZ-J15BTA	D909	CH00151M	DIODE DSM1SD2(200V)TAPE
D651	2344041M	DIODE 1SS254TA/1SS270TA	D910	2974432M	JUMPER WIRE (0.5 L=52MM)
D653	2344041M	DIODE 1SS254TA/1SS270TA	D911	2337952S	DIODE RU4YX(LF015-302)
D654	2348432M	DIODE RMPG06G	D912	2337952S	DIODE RU4YX(LF015-302)
D655	2348432M	DIODE RMPG06G	D914	2337952S	DIODE RU4YX(LF015-302)
⚠ D656	2344072	DIODE ERC20M-08(800V)	D917	2974432M	JUMPER WIRE (0.5 L=52MM)
⚠ D657	2344072	DIODE ERC20M-08(800V)	D918	CH00172M	DIODE DFM1SD2(200V)TAPE
D661	2348432M	DIODE RMPG06G	D919	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
D662	2344041M	DIODE 1SS254TA/1SS270TA	D920	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
D702	2344041M	DIODE 1SS254TA/1SS270TA	D925	2348431M	DIODE RMPG06D
D705	CH01042M	DIODE RK34 (40V)	D927	CH01042M	DIODE RK34 (40V)
D706	CH01042M	DIODE RK34 (40V)	D928	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
D751	2344041M	DIODE 1SS254TA/1SS270TA	D929	CH01042M	DIODE RK34 (40V)
⚠ D752	CH00551F	DIODE FMQ-G5FS LF715 1500V	D930	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
D753	2344041M	DIODE 1SS254TA/1SS270TA	D931	2348431M	DIODE RMPG06D
D754	2348273M	DIODE MTZ-J27CTA	D936	2348213M	ZENER DIODE MTZJ-15C TA
D755	2348141M	ZENER DIODE MTZJ-7.5A TA	D940	2335991M	ZENER HZ-T33 (02 TP)
D756	2344041M	DIODE 1SS254TA/1SS270TA	D954	2348193M	ZENER DIODE MTZJ-12C TA
⚠ D757	2348292M	DIODE MTZ-J33BTA	D955	2348121M	ZENER MTZJ-6.2A TA
⚠ D759	2333001M	DIODE RU2M (V) SI 1.0A 400V	D958	2344041M	DIODE 1SS254TA/1SS270TA
D760	2348432M	DIODE RMPG06G	D959	2344041M	DIODE 1SS254TA/1SS270TA
D762	2348193M	ZENER DIODE MTZJ-12C TA	D960	2348431M	DIODE RMPG06D
D771	2344041M	DIODE 1SS254TA/1SS270TA	D961	2331844M	ZENER HZ12-B1
D802	2344041M	DIODE 1SS254TA/1SS270TA	D963	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
D803	2344041M	DIODE 1SS254TA/1SS270TA	⚠ D964	2335981M	DIODE RM11C (V)
D804	2344041M	DIODE 1SS254TA/1SS270TA	D965	2348431M	DIODE RMPG06D
D806	2344041M	DIODE 1SS254TA/1SS270TA	D966	2348101M	ZENER MTZJ-5.1A TA
D808	2344041M	DIODE 1SS254TA/1SS270TA	D970	CH01042M	DIODE RK34 (40V)
D813	2348432M	DIODE RMPG06G	D971	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
D814	2348432M	DIODE RMPG06G	D972	2348431M	DIODE RMPG06D
D815	2348432M	DIODE RMPG06G	D974	2348132M	ZENER MTZ-J6.8BTA
D816	2348432M	DIODE RMPG06G	D975	2348182M	DIODE MTZ-J11B
D852	2344041M	DIODE 1SS254TA/1SS270TA	DE01	2348274M	DIODE MTZ-J27DTA

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
DE02	2348244M	DIODE MTZ-J20DTA	DK17	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DE03	2331913M	DIODE 1SS83 (TAPE)	DK18	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DE04	2331913M	DIODE 1SS83 (TAPE)	DK19	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DE05	2331913M	DIODE 1SS83 (TAPE)	DK20	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DE06	2331913M	DIODE 1SS83 (TAPE)	DK21	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DE17	2344041M	DIODE 1SS254TA/1SS270TA	DK22	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DE18	2344041M	DIODE 1SS254TA/1SS270TA	DK23	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DF01	2344041M	DIODE 1SS254TA/1SS270TA	DK24	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DF02	2344041M	DIODE 1SS254TA/1SS270TA	DK25	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DF03	2344041M	DIODE 1SS254TA/1SS270TA	DK26	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DF04	2344041M	DIODE 1SS254TA/1SS270TA	DK27	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V
DF05	2338531M	DIODE EG-01C (V) SI 0.5A	DK30	2348141M	ZENER DIODE MTZJ-7.5A TA
DF07	CH00901M	DIODE RGP02-15E 1500V 20A	DK31	2348141M	ZENER DIODE MTZJ-7.5A TA
DF08	CH00901M	DIODE RGP02-15E 1500V 20A	DK32	2348141M	ZENER DIODE MTZJ-7.5A TA
DG01	2348103M	ZENER MTZJ-5.1C TA	DK33	2348141M	ZENER DIODE MTZJ-7.5A TA
DG02	2348103M	ZENER MTZJ-5.1C TA	DK34	2348141M	ZENER DIODE MTZJ-7.5A TA
DH01	2348103M	ZENER MTZJ-5.1C TA	DK35	2348141M	ZENER DIODE MTZJ-7.5A TA
DH02	2348103M	ZENER MTZJ-5.1C TA	DK36	2348141M	ZENER DIODE MTZJ-7.5A TA
DH03	2348103M	ZENER MTZJ-5.1C TA	DK37	2348141M	ZENER DIODE MTZJ-7.5A TA
DH04	2348062M	ZENER MTZJ-3.6B TA	DK40	2331806M	ZENER DIODE HZ-6 TAPE (B3) SI 500MW
DH05	2344041M	DIODE 1SS254TA/1SS270TA	DK41	2331806M	ZENER DIODE HZ-6 TAPE (B3) SI 500MW
DH06	2348212M	DIO-MTZ-J15BTA	DK42	2331806M	ZENER DIODE HZ-6 TAPE (B3) SI 500MW
DH07	2348212M	DIO-MTZ-J15BTA	DK43	2331806M	ZENER DIODE HZ-6 TAPE (B3) SI 500MW
DH08	2344041M	DIODE 1SS254TA/1SS270TA	DK44	2331806M	ZENER DIODE HZ-6 TAPE (B3) SI 500MW
DH09	2339551M	DIODE ED14(V1) SI 5MA 45V	DL01	2348141M	ZENER DIODE MTZJ-7.5A TA
DH10	2344041M	DIODE 1SS254TA/1SS270TA	DL02	2348141M	ZENER DIODE MTZJ-7.5A TA
⚠ DH11	2337361F	DIODE RU4D LF-20	DL03	2348141M	ZENER DIODE MTZJ-7.5A TA
DH12	2344041M	DIODE 1SS254TA/1SS270TA	DL04	2348141M	ZENER DIODE MTZJ-7.5A TA
DH13	2344041M	DIODE 1SS254TA/1SS270TA	DL05	2348141M	ZENER DIODE MTZJ-7.5A TA
DH14	2344041M	DIODE 1SS254TA/1SS270TA	DL06	2348141M	ZENER DIODE MTZJ-7.5A TA
DH15	2344041M	DIODE 1SS254TA/1SS270TA	DL07	2348141M	ZENER DIODE MTZJ-7.5A TA
DH16	2344041M	DIODE 1SS254TA/1SS270TA	DL08	2348141M	ZENER DIODE MTZJ-7.5A TA
DH17	CH00151M	DIODE DSM1SD2(200V)TAPE	DL10	2344041M	DIODE 1SS254TA/1SS270TA
DH20	CH00151M	DIODE DSM1SD2(200V)TAPE	DL11	2344041M	DIODE 1SS254TA/1SS270TA
DH21	2344041M	DIODE 1SS254TA/1SS270TA	DL12	2344041M	DIODE 1SS254TA/1SS270TA
DH22	2344041M	DIODE 1SS254TA/1SS270TA	DL13	2344041M	DIODE 1SS254TA/1SS270TA
DH23	2344041M	DIODE 1SS254TA/1SS270TA	DL14	2344041M	DIODE 1SS254TA/1SS270TA
⚠ DH24	CH00031M	DIODE AU02V1(280V)	DL15	2344041M	DIODE 1SS254TA/1SS270TA
DH25	2348174M	DIODE MTZ-J10DTA	DL16	2344041M	DIODE 1SS254TA/1SS270TA
DH26	2348193M	ZENER DIODE MTZJ-12C TA	DL17	2344041M	DIODE 1SS254TA/1SS270TA
DH27	2344041M	DIODE 1SS254TA/1SS270TA	DL20	2348123M	ZENER MTZJ-6.2C TA
DH28	2348092M	ZENER MTZ-J4.7BTA	DL21	2348123M	ZENER MTZJ-6.2C TA
DH29	2344041M	DIODE 1SS254TA/1SS270TA	DL22	2348123M	ZENER MTZJ-6.2C TA
DH30	2344041M	DIODE 1SS254TA/1SS270TA	DL23	2348123M	ZENER MTZJ-6.2C TA
DH31	2335042M	ZENER HZ-22 (2L TP) SI 200MA 400MW	DL24	2348123M	ZENER MTZJ-6.2C TA
⚠ DH32	2344041M	DIODE 1SS254TA/1SS270TA	DL25	2348123M	ZENER MTZJ-6.2C TA
DH33	2334305M	ZENER RD30E (B4 T2/TP/TA) SI 5MA 30.51V	DL26	2348123M	ZENER MTZJ-6.2C TA
⚠ DH34	2344041M	DIODE 1SS254TA/1SS270TA	DL27	2348123M	ZENER MTZJ-6.2C TA
⚠ DH35	2344041M	DIODE 1SS254TA/1SS270TA	DL28	2331827M	ZENER DIODE HZ-9 TAPE (C1)SI 500MW 9.3V
DH40	2344041M	DIODE 1SS254TA/1SS270TA	DL30	2348161M	DIODE MTZ-J 9.1ATA
DH41	2334243M	ZENER RD16E (B2 T2/TP/TA) SI 10MA 16.51V	DL31	2348161M	DIODE MTZ-J 9.1ATA
DH42	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V	DL32	2348161M	DIODE MTZ-J 9.1ATA
DK01	2339551M	DIODE ED14(V1) SI 5MA 45V	DL33	2348161M	DIODE MTZ-J 9.1ATA
DK04	2348431M	DIODE RMPG06D	DL34	2348161M	DIODE MTZ-J 9.1ATA
DK05	2348431M	DIODE RMPG06D	DL35	2348161M	DIODE MTZ-J 9.1ATA
DK16	2334324M	ZENER DIODE RD36E TAPE(B3)SI 500MW 36V	DL36	2348161M	DIODE MTZ-J 9.1ATA

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
DL37	2348161M	DIODE MTZ-J 9.1ATA
DM01	2344041M	DIODE 1SS254TA/1SS270TA
DM02	2344041M	DIODE 1SS254TA/1SS270TA
DM03	CH00231	LED SLH-56VC3F
DM04	2348212M	DIO-MTZ-J15BTA
DM05	2348212M	DIO-MTZ-J15BTA
DM07	2348212M	DIO-MTZ-J15BTA
DM08	2348212M	DIO-MTZ-J15BTA
DM09	2348212M	DIO-MTZ-J15BTA
DM10	2348212M	DIO-MTZ-J15BTA
DM11	2348212M	DIO-MTZ-J15BTA
DN01	2344041M	DIODE 1SS254TA/1SS270TA
DN02	2344041M	DIODE 1SS254TA/1SS270TA
DN03	2344041M	DIODE 1SS254TA/1SS270TA
DN04	2344041M	DIODE 1SS254TA/1SS270TA
DN05	2348071M	ZENER DIODE MTZJ-3.9A TA
DN06	2344041M	DIODE 1SS254TA/1SS270TA
DN07	2344041M	DIODE 1SS254TA/1SS270TA
DN08	CH00151M	DIODE DSM1SD2(200V)TAPE
DN09	2331849M	ZENER HZ12C3 (TA) SI 500MW
DN10	2344041M	DIODE 1SS254TA/1SS270TA
DN11	2344041M	DIODE 1SS254TA/1SS270TA
DN12	2344041M	DIODE 1SS254TA/1SS270TA
DP01	CH00172M	DIODE DFM1SD2(200V)TAPE
DP02	2334324M	ZENER DIODE RD36E TAPE (B3) SI 500MW 36V
DP03	CH00172M	DIODE DFM1SD2(200V)TAPE
DP04	2331844M	ZENER HZ12-B1
DP05	2331844M	ZENER HZ12-B1
DP06	CH00183R	LIGHT EMITTING DIODE (SLZ-981C-06-T1)
DP07	CH01061F	DIODE RU4AM(600V)
DP08	2336615	DIODE RU3YX (LF-A1)
DP09	2336615	DIODE RU3YX (LF-A1)
DP10	2336615	DIODE RU3YX (LF-A1)
DP11	CH01061F	DIODE RU4AM(600V)
DP12	2337952S	DIODE RU4YX(LF015-302)
DP13	2337952S	DIODE RU4YX(LF015-302)
DP14	CH01042M	DIODE RK34 (40V)
DP15	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
DP16	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
DP17	2348283M	ZENER DIODE MTZJ-30C TA
DP18	2348143M	DIODE MTZ-J7.5CTA
DP19	2344041M	DIODE 1SS254TA/1SS270TA
DP20	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
DP21	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
DP22	CH00182R	LIGHT EMITTING DIODE (SLZ-381C-06-T1)
DP23	2344041M	DIODE 1SS254TA/1SS270TA
DP25	2344041M	DIODE 1SS254TA/1SS270TA
DP26	2348042M	ZENER MTZ-J3.0BTA
DP27	2344041M	DIODE 1SS254TA/1SS270TA
DP28	2348121M	ZENER MTZJ-6.2A TA
DP29	2344041M	DIODE 1SS254TA/1SS270TA
DP30	2348432M	DIODE RMPG06G
DP31	2348432M	DIODE RMPG06G
DP32	2348121M	ZENER MTZJ-6.2A TA
DP33	2344041M	DIODE 1SS254TA/1SS270TA
DP34	2344041M	DIODE 1SS254TA/1SS270TA
DP36	CH00901M	DIODE RGP02-15E 1500V 20A
DP37	CH00901M	DIODE RGP02-15E 1500V 20A
DP38	2344041M	DIODE 1SS254TA/1SS270TA
DP39	2348193M	ZENER DIODE MTZJ-12C TA
DP41	2348431M	DIODE RMPG06D
DS01	CH00151M	DIODE DSM1SD2(200V)TAPE
DS02	CH00151M	DIODE DSM1SD2(200V)TAPE
DS03	CH00151M	DIODE DSM1SD2(200V)TAPE
DS20	2344041M	DIODE 1SS254TA/1SS270TA
DS21	2348031M	DIO-MTZ-J2.7ATA
DS22	2344041M	DIODE 1SS254TA/1SS270TA
DS23	2348031M	DIO-MTZ-J2.7ATA
DS25	2348031M	DIO-MTZ-J2.7ATA
DS27	2348031M	DIO-MTZ-J2.7ATA
DS30	2348031M	DIO-MTZ-J2.7ATA
DS31	2344041M	DIODE 1SS254TA/1SS270TA
DS32	2344041M	DIODE 1SS254TA/1SS270TA
DS33	2344041M	DIODE 1SS254TA/1SS270TA
DS34	2344041M	DIODE 1SS254TA/1SS270TA
DS35	2348212M	DIO-MTZ-J15BTA
DS36	2348212M	DIO-MTZ-J15BTA
DS37	2348212M	DIO-MTZ-J15BTA
DS38	2348212M	DIO-MTZ-J15BTA
DS39	2348212M	DIO-MTZ-J15BTA
DS40	2348212M	DIO-MTZ-J15BTA
DS41	2348212M	DIO-MTZ-J15BTA
DS42	2348212M	DIO-MTZ-J15BTA
DS43	2348212M	DIO-MTZ-J15BTA
DS44	2348212M	DIO-MTZ-J15BTA
DS45	2348212M	DIO-MTZ-J15BTA
DX01	2344041M	DIODE 1SS254TA/1SS270TA
DX02	2344041M	DIODE 1SS254TA/1SS270TA
DX05	2344041M	DIODE 1SS254TA/1SS270TA
DX06	2344041M	DIODE 1SS254TA/1SS270TA
DX07	2344041M	DIODE 1SS254TA/1SS270TA
DX08	2348163M	ZENER MTZJ-9.1C TA
DX09	2348163M	ZENER MTZJ-9.1C TA
DX10	2348163M	ZENER MTZJ-9.1C TA
DX11	2344041M	DIODE 1SS254TA/1SS270TA
DX12	2344041M	DIODE 1SS254TA/1SS270TA
		FUSES
⚠ E992	AZ00109M	PROTECTOR CRXT491007
⚠ E994	AZ00109M	PROTECTOR CRXT491007
⚠ E995	AZ00109M	PROTECTOR CRXT491007
⚠ E996	AZ00108M	PROTECTOR(CRXT491005)
⚠ EP91	AZ00109M	PROTECTOR CRXT491007
⚠ EP92	AZ00107M	PROTECTOR CRXT491004
⚠ EP93	AZ00108M	PROTECTOR(CRXT491005)
⚠ EP94	AZ00109M	PROTECTOR CRXT491007
⚠ EP95	AZ00109M	PROTECTOR CRXT491007
⚠ EP96	AZ00109M	PROTECTOR CRXT491007
⚠ EP97	AZ00109M	PROTECTOR CRXT491007
⚠ EP98	AZ00104M	PROTECTOR(CRXT491002)

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
⚠ F901	2722359	FUSE AC06A
⚠ K253	AZ00101M	PROTECTOR(CRXT491.500)
		COMPOUND COMPONENTS
⚠ EANT	HP00341	ANT SW
⚠ H901	2793312	CP-EXN-471P365L
H902	2974432M	JUMPER WIRE (0.5 L=52MM)
HM01	CZ00522	R/C RECIVER UNIT (TYPE SBX1981-52)
U002	HC00311	TUNER UNIT V6-A30FT
U003	2429691	FE TUNER V8-A68FT
U004	CS00192	3DYC-PINP UNIT ASY(HC3152)
U006	CS00185	FLEX CONT.UNIT ASY(HC5125)
⚠ UFPK	AZ00005	FOCUS PACK TYPE MHF116
UKDG	CS00222	PRINTED WIRING BOARD (HC2112)
		INTEGRATED CIRCUITS
I001	CP06342U	IC-MN102L35GHA1
I002	CP05272U	E2PROM M24C16-BN6
I003	CP05261U	DIGITAL MONOLITHIC IC (M62392P)
I004	2015712R	IC HD74HC4053FPEL
I005	2000541	IC M51951BSL
I008	CP05571	IC BA17805
I010	CP05571	IC BA17805
I012	CP04232	ANALOG MONOLITHIC IC BA033T
I013	CK08521R	ANALOG MONOLITHIC IC (BA7657F-E2)
I014	CK07131R	ANALOG MONO. IC (MC14053BFEL)
I016	2020342	IC MM1115XS
I301	CP00742U	TA8851BN
I302	CP05572	ANALOG MONOLITHIC IC (BA17809)
I304	CW00022	COMB FILTER (337KNT)
I401	2004751	IC TA8200AH
I402	2004751	IC TA8200AH
I403	2004751	IC TA8200AH
I601	CZ00761U	LA7846N
I651	2365452	IC NJM2903D
I701	CP05571	IC BA17805
I702	CZ00751U	UPC1885
I703	2362602	IC UPC4558
⚠ I901	CZ00451	HYBRID IC (STR-M6811A)
⚠ I904	2000465	IC PS2501-1 (KC/LC)
⚠ I905	2000465	IC PS2501-1 (KC/LC)
⚠ I906	2000465	IC PS2501-1 (KC/LC)
I907	CP03924F	IC SI-8120S
I908	CP03923F	ANALOG MONOLITHIC IC (SI-8090S)
I914	CP03922F	ANALOG MONOLITHIC IC (SI-8050S)
IG01	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG02	CP02771U	GRAPHICEQULIZER IC
IG03	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG04	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG05	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG06	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG07	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG08	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG09	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG10	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG11	CP02771U	GRAPHICEQULIZER IC
IG12	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG13	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG14	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IG15	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IH01	2362161	IC HD74LS221P
IH02	2366721	IC UPC1394C
IK01	CP05571	IC BA17805
IK02	CP01631R	ICL-PST9142
IK03	CP05571	IC BA17805
IK04	CZ00431	HYBRID IC (STK392-110)
IK05	CZ00431	HYBRID IC (STK392-110)
⚠ IP01	CZ00451	HYBRID IC (STR-M6811A)
IP02	CP05141	ANALOG MONOLITHIC IC (PQ6RD083)
IP03	CP03924F	IC SI-8120S
⚠ IP04	2381344	IC SE130N
⚠ IP05	2000465	IC PS2501-1 (KC/LC)
⚠ IP06	2000465	IC PS2501-1 (KC/LC)
IS01	2020001	IC TDA9860
IS02	2020001	IC TDA9860
IS03	2020001	IC TDA9860
IS04	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IS05	CP00801U	IC LA2785
IS06	CP00791U	IC LV1010N
IS07	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IS08	CP02601	AN5285K
IS09	CK06362R	DIGITAL MONO. IC (MC14052BFEL)
IS10	CK07141R	ANALOG MONO. IC (BA4558F-E2)
IX01	CP04712U	ANALOG MONOLITHIC IC (TA1276AN)
		COILS
L001	BJ00402	30MHZ BAND PASS LC FILTER 87F2
L002	BH00214R	FILTER COIL 100UH
L003	BH00697R	COIL 100UH
L004	BH00697R	COIL 100UH
L005	BH00214R	FILTER COIL 100UH
L007	BH00214R	FILTER COIL 100UH
L008	BH00214R	FILTER COIL 100UH
L009	BH00214R	FILTER COIL 100UH
L010	BH00214R	FILTER COIL 100UH
L012	BH00697R	COIL 100UH
L013	BH00697R	COIL 100UH
L014	BH00697R	COIL 100UH
L015	BH00697R	COIL 100UH
L016	BH00697R	COIL 100UH
L017	BH00694R	COIL 56UH
L018	BH00697R	COIL 100UH
L020	BH00697R	COIL 100UH
L021	BH00214R	FILTER COIL 100UH
L022	BH00697R	COIL 100UH
L023	BH00697R	COIL 100UH
L024	BH00697R	COIL 100UH
L025	BH00697R	COIL 100UH

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
L026	BH00697R	COIL 100UH
L028	BH00697R	COIL 100UH
L029	BH00697R	COIL 100UH
L030	BH00697R	COIL 100UH
L031	2123107M	LAL02 AXIAL COIL 22UH-K
L032	BH00697R	COIL 100UH
L301	BH00697R	COIL 100UH
L302	BH00697R	COIL 100UH
L303	BH00697R	COIL 100UH
L304	BH00697R	COIL 100UH
L305	BH00697R	COIL 100UH
L403	2122652M	FERRITE CORE
L404	2122652M	FERRITE CORE
L405	2122652M	FERRITE CORE
L406	2122652M	FERRITE CORE
L407	2122652M	FERRITE CORE
L408	BH00697R	COIL 100UH
L651	BZ00841	CHOKE COIL 150UH SL1720
L652	BH00561	COIL HC-331K-1
L661	2123462M	FERRITE BEADS CORE B 2.3UH
L662	2123462M	FERRITE BEADS CORE B 2.3UH
L751	BH00212R	FILTER COIL 68UH
L752	BZ02582	H. LINEARITY COIL 3UH
L753	BZ02583	LINEARITY COIL 6UH
L755	2123462M	FERRITE BEADS CORE B 2.3UH
L757	2123462M	FERRITE BEADS CORE B 2.3UH
L758	BH00228R	COIL 332K-1T7608A
L763	2123461M	FERRITE BEADS B 0.8 MH
L765	2123461M	FERRITE BEADS B 0.8 MH
L801	BH00682R	COIL 6.8UH
L802	BH00682R	COIL 6.8UH
L805	BH00675R	COIL 2.2UH
L851	BH00682R	COIL 6.8UH
L852	BH00682R	COIL 6.8UH
L855	BH00679R	COIL 4.7UH
L8A1	BH00682R	COIL 6.8UH
L8A2	BH00682R	COIL 6.8UH
L8A5	BH00681R	COIL 5.6UF
L8A6	BH00697R	COIL 100UH
⚠ L901	BZ01841	LX-LINE FILTER(102)
⚠ L902	BZ01831	LX-LINE FILTER(382)
⚠ L903	BZ01831	LX-LINE FILTER(382)
⚠ L904	BZ01841	LX-LINE FILTER(102)
⚠ L906	BZ01841	LX-LINE FILTER(102)
L907	2123462M	FERRITE BEADS CORE B 2.3UH
L908	2123462M	FERRITE BEADS CORE B 2.3UH
L909	BH00201R	FILTER COIL 10UH
L910	BH00201R	FILTER COIL 10UH
L911	BH00201R	FILTER COIL 10UH
L913	BV00901	PL-CHOPPER COIL 200UH/2A
L914	BV00901	PL-CHOPPER COIL 200UH/2A
L918	2123462M	FERRITE BEADS CORE B 2.3UH
L919	2123462M	FERRITE BEADS CORE B 2.3UH
L922	BV00901	PL-CHOPPER COIL 200UH/2A
L923	BH00211R	FILTER COIL 56UH
L924	BH00209R	FILTER COIL 47UH
L925	2123461M	FERRITE BEADS B 0.8 MH
LE01	BH00214R	FILTER COIL 100UH
LE02	BH00214R	FILTER COIL 100UH
LE03	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LF01	BH00229R	COIL 472K-1T7608A
LG01	BH00697R	COIL 100UH
LG02	BH00697R	COIL 100UH
LH01	BH00214R	FILTER COIL 100UH
⚠ LH02	BH00214R	FILTER COIL 100UH
LH03	BH00217R	FILTER COIL 180UH
LK01	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK02	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK03	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK04	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK05	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK06	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK07	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK08	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK09	2123462M	FERRITE BEADS CORE B 2.3UH
LK10	2123462M	FERRITE BEADS CORE B 2.3UH
LK11	2123462M	FERRITE BEADS CORE B 2.3UH
LK12	BH00697R	COIL 100UH
LK13	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK14	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK15	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK16	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK17	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK18	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK19	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LK20	2123468M	FERRITE BEADS CORE LEAD 0.8MH
LL01	BH00697R	COIL 100UH
LP01	2123462M	FERRITE BEADS CORE B 2.3UH
LP02	2123462M	FERRITE BEADS CORE B 2.3UH
LP03	BH00214R	FILTER COIL 100UH
LP04	BH00214R	FILTER COIL 100UH
LP05	BH00209R	FILTER COIL 47UH
LP06	BH00209R	FILTER COIL 47UH
LP07	BV00901	PL-CHOPPER COIL 200UH/2A
LP08	BH00212R	FILTER COIL 68UH
LP09	BH00212R	FILTER COIL 68UH
LP10	BH00212R	FILTER COIL 68UH
LP11	BH00206R	FILTER COIL 27UH
LP12	BH00209R	FILTER COIL 47UH
LP13	BH00206R	FILTER COIL 27UH
LP14	BH00209R	FILTER COIL 47UH
LP17	BH00214R	FILTER COIL 100UH
LP18	BH00217R	FILTER COIL 180UH
LP20	2123461M	FERRITE BEADS B 0.8 MH
LP22	2124362	DC.NOISE FILTER
LP23	2124362	DC.NOISE FILTER
LS01	BH00697R	COIL 100UH
LS02	BH00697R	COIL 100UH
LS03	BH00697R	COIL 100UH
LS04	BH00697R	COIL 100UH
LS05	BH00697R	COIL 100UH
LS06	BH00697R	COIL 100UH

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
LS07	BH00697R	COIL 100UH
LS08	BH00697R	COIL 100UH
LX03	BH00697R	COIL 100UH
LX04	BH00697R	COIL 100UH
LX05	BH00697R	COIL 100UH
LX06	BH00697R	COIL 100UH
LX07	BH00697R	COIL 100UH
LX08	BH00697R	COIL 100UH
LX09	BH00697R	COIL 100UH
LX10	BH00697R	COIL 100UH
LX17	BH00697R	COIL 100UH
		TRANSISTORS
Q001	2325781R	2SA1037KT146Q/R
Q002	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q003	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q004	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q005	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q006	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q007	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q008	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q009	2312171	TRS. 2SC3852
Q010	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q011	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q012	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q013	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q014	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q015	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q018	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q019	2325781R	2SA1037KT146Q/R
Q020	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q021	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q022	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q023	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q024	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q025	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q026	2325781R	2SA1037KT146Q/R
Q031	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q032	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q033	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q034	2325781R	2SA1037KT146Q/R
Q035	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q036	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q037	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q038	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q039	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q040	2325781R	2SA1037KT146Q/R
Q041	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q042	2325781R	2SA1037KT146Q/R
Q043	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q044	2325781R	2SA1037KT146Q/R
Q045	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q046	2325781R	2SA1037KT146Q/R
Q047	2320647M	TRS.2SC1213(C21 TZ/D 21TZ)SI80MHZ400MW
Q048	2325781R	2SA1037KT146Q/R
Q049	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q050	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q051	2325781R	2SA1037KT146Q/R
Q052	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q053	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q054	2325781R	2SA1037KT146Q/R
Q055	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q056	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q057	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q058	2325781R	2SA1037KT146Q/R
Q059	2325781R	2SA1037KT146Q/R
Q061	2325781R	2SA1037KT146Q/R
Q062	2325781R	2SA1037KT146Q/R
Q063	2325781R	2SA1037KT146Q/R
Q067	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q068	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q069	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q070	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q071	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q301	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q302	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q303	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q305	2320647M	TRS.2SC1213(C21 TZ/D 21TZ)SI80MHZ400MW
Q306	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q307	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q312	2320647M	TRS.2SC1213(C21 TZ/D 21TZ)SI80MHZ400MW
Q313	2320647M	TRS.2SC1213(C21 TZ/D 21TZ)SI80MHZ400MW
Q321	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
Q401	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q402	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q403	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q404	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q405	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q406	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q407	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q408	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q409	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q410	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q411	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q412	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q601	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q602	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q610	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q652	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ)SI 80MHZ400MW
Q653	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ)SI80MHZ400MW
Q654	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ)SI80MHZ400MW
Q655	2320663M	TRS. 2SC1213A (C)
Q656	2320637M	TRS. 2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
Q657	2312282	TRS 2SC4160(M)
Q701	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
Q751	2326216	TRS. 2SC3116 (S/T)
Q754	2320637M	TRS. 2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
Q755	2320591M	TRS. 2SC458(B TZ/C TZ)SI230MHZ200MW
⚠ Q777	CF01891F	TRS. 2SC5413
Q801	2327471F	TRS.2SC3950 (HIT D/E)

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
Q802	2320591M	TRS.2SC458(B TZ/C TZ)SI230MHZ200MW
Q803	2312372F	TRS-2SC3942
Q804	2312773F	TRS-2SA1546(2)M/L
Q805	2312372F	TRS-2SC3942
Q812	2312371	TRS. 2SC3942
Q851	2327471F	TRS.2SC3950 (HIT D/E)
Q852	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
Q853	2312372F	TRS-2SC3942
Q854	2312773F	TRS-2SA1546(2)M/L
Q855	2312372F	TRS-2SC3942
Q858	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
Q859	2320591M	TRS.2SC458(B TZ/C TZ)SI230MHZ200MW
Q862	2312371	TRS. 2SC3942
Q8A1	2327471F	TRS.2SC3950 (HIT D/E)
Q8A2	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q8A3	2312372F	TRS-2SC3942
Q8A4	2312773F	TRS-2SA1546(2)M/L
Q8A5	2312372F	TRS-2SC3942
Q8A6	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
Q8A7	2320591M	TRS.2SC458(B TZ/C TZ)SI230MHZ200MW
Q8C1	2320591M	TRS.2SC458(B TZ/C TZ)SI230MHZ200MW
Q8C2	2312371	TRS. 2SC3942
⚠ Q913	2323782R	THYRISTOR 03P2M(TA)
Q914	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q915	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q916	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
Q917	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
Q918	2320663M	TRS. 2SC1213A (C)
QE01	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QE02	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QE03	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QE04	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QE05	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QE07	CF01881R	TRS. 2SA1283 E
QE08	CF01871R	TRS. 2SC3243 E
QE10	CF01871R	TRS. 2SC3243 E
QE11	CF01881R	TRS. 2SA1283 E
QE22	2326821	TRANSISTOR 2SA1371 E/F
QE23	2315381	TRS. 2SA1837
QE24	2315381	TRS. 2SA1837
QE25	2315391	TRS. 2SC4793
QE26	2315391	TRS. 2SC4793
QE35	2326811	TRS-2SC3468
QE36	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QF01	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QF02	2320663M	TRS. 2SC1213A (C)
QF03	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ 400MW
QF04	2320663M	TRS. 2SC1213A (C)
QF05	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QF06	CF00821F	TRS. 2SC4686A 1200V
QF07	CF00821F	TRS. 2SC4686A 1200V
QF08	2326873R	TRS. DTC144ES TP
QF09	CF00821F	TRS. 2SC4686A 1200V
⚠ QH01	2390851	TRS. ST-1MB12-140 (ABC)
QH02	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QH03	2321112M	TRS.2SA778AK(02 TAPE)

SYMBOL NO.	PART NO.	PART DESCRIPTION
⚠ QH04	2321321M	TRS. 2SA844 (D TZ/E TZ) SI 200MHZ300MW
⚠ QH05	2321321M	TRS. 2SA844 (D TZ/E TZ) SI 200MHZ300MW
QH06	2321321M	TRS. 2SA844 (D TZ/E TZ) SI 200MHZ300MW
QH07	2320637M	TRS. 2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QH08	2320591M	TRS.2SC458(B TZ/C TZ)SI 230MHZ200MW
QH09	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QH10	2320637M	TRS. 2SA673 (C 26TZ/D 26TZ)SI 80MHZ 400MW
QH11	2320591M	TRS. 2SC458 (B TZ/C TZ)SI 230MHZ200MW
QH12	2320637M	TRS. 2SA673(C 26TZ/D 26TZ)SI 80MHZ 400MW
QH13	2320591M	TRS.2SC458(B TZ/C TZ)SI230MHZ200MW
QK01	2312171	TRS. 2SC3852
QK02	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QK03	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QK06	2320591M	TRS.2SC458(B TZ/C TZ)SI230MHZ200MW
QK07	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QK08	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QL10	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QL11	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QL12	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QL13	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QL14	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QL15	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QL16	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QL17	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QM01	2320591M	TRS. 2SC458 (B TZ/C TZ)SI230MHZ200MW
QM02	2312992	PHOTO TRS. RPT-38PT3F (M)
QM03	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QM04	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QN01	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QN02	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QN03	2320591M	TRS. 2SC458 (B TZ/C TZ) SI 230MHZ200MW
QN04	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QN05	2320591M	TRS. 2SC458 (B TZ/C TZ)SI230MHZ200MW
QN06	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QN07	2320591M	TRS. 2SC458 (B TZ/C TZ)SI230MHZ200MW
QP01	2312171	TRS. 2SC3852
QP02	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QP03	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QP04	2321112M	TRS.2SA778AK(02 TAPE)
⚠ QP05	2323782R	THYRISTOR 03P2M(TA)
QP06	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QP08	2327461	TRS.2SA1488 (Y/G)
QS01	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS02	2325781R	2SA1037KT146Q/R
QS03	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS04	2325781R	2SA1037KT146Q/R
QS05	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS06	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS07	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS08	2325781R	2SA1037KT146Q/R
QS09	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS10	2325781R	2SA1037KT146Q/R
QS11	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS12	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS13	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS14	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
QS15	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QS16	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX08	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX09	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX10	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX14	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX15	2325781R	2SA1037KT146Q/R
QX16	2325781R	2SA1037KT146Q/R
QX17	2325781R	2SA1037KT146Q/R
QX23	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI 80MHZ400MW
QX28	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QX33	2320637M	TRS.2SA673(C 26TZ/D 26TZ)SI80MHZ400MW
QX36	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX37	2325781R	2SA1037KT146Q/R
QX38	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX41	2320647M	TRS.2SC1213(C21 TZ/D 21TZ)SI80MHZ400MW
QX45	2325691R	TRANSISTOR CHIP(2SC2412KQ/R)
QX46	2325781R	2SA1037KT146Q/R
		RESISTORS
R001	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R002	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R003	0700032M	RES.-CARBON FLM 1/16W 220-JB
R004	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R005	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R006	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R007	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R008	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R010	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R011	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R012	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R013	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R014	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R015	0700027M	RES.-CARBON FLM 1/16W 100-JB
R016	0700027M	RES.-CARBON FLM 1/16W 100-JB
R017	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R018	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R019	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R020	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R021	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R022	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R023	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R024	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R025	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R026	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R027	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R029	0700027M	RES.-CARBON FLM 1/16W 100-JB
R031	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R032	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R033	0700027M	RES.-CARBON FLM 1/16W 100-JB
R034	0700027M	RES.-CARBON FLM 1/16W 100-JB
R035	0700027M	RES.-CARBON FLM 1/16W 100-JB
R036	0700027M	RES.-CARBON FLM 1/16W 100-JB
R037	0195875R	RES 2125 CHIP 1/16W 100J TAPE

SYMBOL NO.	PART NO.	PART DESCRIPTION
R038	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R039	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R040	0700027M	RES.-CARBON FLM 1/16W 100-JB
R041	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R042	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R043	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R044	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R046	0188171M	RES.-CARBON FLM 1M-JB 1/2W
R047	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R048	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R049	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R050	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R051	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R052	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R053	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R054	0195902R	RES 2125 CHIP 1/16W 1.2KJ TAPE
R055	0195885R	RESISTOR 2125 CHIP 1/16W 270J TAPE
R056	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R057	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R058	0195879R	RES 2125 CHIP 1/16W 150J TAPE
R059	0195904R	RESISTOR 2125 CHIP 1/16W 1.5KJ TAPE
R060	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R061	0195966R	RES 2125 CHIP 1/16W 470KJ TAPE
R062	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R063	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R064	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R065	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R066	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R067	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R068	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R069	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R070	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R071	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R072	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R073	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R074	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R075	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R076	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R077	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R078	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R079	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R080	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R081	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R082	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R083	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R084	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R085	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R086	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R088	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R089	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R090	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R091	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R092	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R093	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R094	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R096	0195875R	RES 2125 CHIP 1/16W 100J TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
R097	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R098	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R099	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R0A0	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0A1	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0A2	0114149M	RESISTOR-CARBON FILM SRD 1/4 PF 560-J
R0A3	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R0A4	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R0A5	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE
R0A6	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0A7	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0A8	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0A9	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0C1	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0C2	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0C6	0195897R	RES 2125 CHIP 1/16W 820J TAPE
R0C7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0C8	0195895R	RES.2125 CHIP 1/10W 680J TAPE
R0C9	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E1	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E2	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R0E3	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0E5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0E6	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0E7	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0E8	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R0E9	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0F1	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R0F2	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0F3	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0F4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F5	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F6	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F8	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0F9	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0G1	0195895R	RES.2125 CHIP 1/10W 680J TAPE
R0G2	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0G3	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0G4	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R0G5	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0G6	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0G7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0G8	0100059M	RES.-CARBON FLM 1/8W 560-JB
R0G9	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0H1	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R0H2	0700058M	RES.-CARBON FLM 1/16W 22K-JB
R0H3	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0H5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0H6	0195897R	RES 2125 CHIP 1/16W 820J TAPE
R0H7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0H8	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0H9	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0J1	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R0J2	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0J3	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R0J4	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0J5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0J6	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R0J7	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R0J8	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0J9	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R0K1	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R0K2	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0K3	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0K4	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0K5	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0K6	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R0K7	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0K8	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R0K9	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0L1	0195871R	RMC73S-2A750JR
R0L2	0195866R	RES 2125 CHIP 1/16W 47J TAPE
R0L3	0195866R	RES 2125 CHIP 1/16W 47J TAPE
R0L4	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0L5	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0L6	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0L7	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0L8	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0L9	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0M1	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE
R0M2	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE
R0M3	0195920R	RES 2125 CHIP 1/16W 6.8KJ TAPE
R0M4	0700027M	RES.-CARBON FLM 1/16W 100-JB
R0M5	0700027M	RES.-CARBON FLM 1/16W 100-JB
R0M6	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0M7	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB
R0M8	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R0M9	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R0N1	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0N2	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE
R0N3	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0N6	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0P1	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0P2	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R0P3	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R0R3	0100059M	RES.-CARBON FLM 1/8W 560-JB
R0R4	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R0R6	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R0R7	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0T5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0T6	0700027M	RES.-CARBON FLM 1/16W 100-JB
R0T7	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0T8	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0T9	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE
R0U1	0700027M	RES.-CARBON FLM 1/16W 100-JB
R0U2	0700027M	RES.-CARBON FLM 1/16W 100-JB
R0U3	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE
R0U4	0119605M	RES.-MTL FLM 1/8W 820-FB
R0U5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0U6	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION
R0U7	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE
R0U8	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0U9	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0V1	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
R0V2	0119617M	RES.-MTL FLM 1/8W 2.7K-FB
R0V3	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE
R0V4	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R0V5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0V6	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE
R0V7	0119615M	RES.-MTL FLM 1/8W 2.2K-FB
R0V8	0119621M	RES.-MTL FLM 1/8W 3.9K-FB
R0V9	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE
R0W1	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0W2	0119611M	RES.-MTL FLM 1/8W 1.5K-FB
R0W3	0195895R	RES.2125 CHIP 1/10W 680J TAPE
R0W4	0195895R	RES.2125 CHIP 1/10W 680J TAPE
R0W5	0195895R	RES.2125 CHIP 1/10W 680J TAPE
R0W6	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0W7	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0W8	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0W9	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0X1	0119607M	RES.-MTL FLM 1/8W 1.0K-FB
R0X3	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0X4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0X5	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R0X6	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0X7	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R0X8	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0X9	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R0Y0	0195887R	RES 2125 CHIP 1/16W 330J TAPE
R0Y1	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0Y2	0195897R	RES 2125 CHIP 1/16W 820J TAPE
R0Y3	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0Y4	0700034M	RES.-CARBON FLM 1/16W 330-JB
R0Y5	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R0Y6	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0Y7	0700034M	RES.-CARBON FLM 1/16W 330-JB
R0Y8	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R0Y9	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0Z0	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0Z1	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0Z2	0195897R	RES 2125 CHIP 1/16W 820J TAPE
R0Z3	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R0Z4	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R0Z5	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R0Z6	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R0Z7	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R0Z8	0700019M	RES.-CARBON FLM 1/16W 27-J
R0Z9	0700019M	RES.-CARBON FLM 1/16W 27-J
R100	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R101	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R102	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R103	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE
R104	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R111	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE
R112	0195947R	RES.2125 CHIP 1/10W 82KJ TAPE
R113	0195881R	RES 2125 CHIP 1/16W 180J TAPE
R114	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R115	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
R116	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R117	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE
R126	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE
R127	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R128	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R129	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE
R130	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R131	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R132	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R133	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R136	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R141	0700027M	RES.-CARBON FLM 1/16W 100-JB
R142	0700037M	RES.-CARBON FLM 1/16W 560-JB
R143	0700027M	RES.-CARBON FLM 1/16W 100-JB
R144	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R145	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R146	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R147	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R148	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R149	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R150	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R151	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R152	0700027M	RES.-CARBON FLM 1/16W 100-JB
R153	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R155	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R156	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R157	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R158	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R159	0700027M	RES.-CARBON FLM 1/16W 100-JB
R160	0700027M	RES.-CARBON FLM 1/16W 100-JB
R161	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R162	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R163	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R164	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R165	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R166	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R169	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R171	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R172	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R173	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
R174	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
R175	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R176	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R179	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R183	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB
R196	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R197	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R198	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R199	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R1A1	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R1A2	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R1A7	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R1A9	0195250R	RES 2125 CHIP 1/16W 000 TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R1C8	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R1X5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1C9	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R1X6	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R1E1	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R1X7	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R1E2	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R1X8	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1E3	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R207	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1E4	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R212	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1E5	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R217	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1E6	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R301	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1E7	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R302	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1E8	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R303	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1E9	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R304	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1F1	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R305	0195871R	RMC73S-2A750JR
R1F2	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R306	0195871R	RMC73S-2A750JR
R1F3	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R307	0195871R	RMC73S-2A750JR
R1F4	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R308	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R1F5	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R309	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1F6	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R310	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R1F7	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R311	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1F8	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R312	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1F9	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R313	0195871R	RMC73S-2A750JR
R1G2	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R314	0195871R	RMC73S-2A750JR
R1G4	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R315	0195871R	RMC73S-2A750JR
R1G5	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R316	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R1G6	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R317	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1G7	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R318	0195871R	RMC73S-2A750JR
R1G8	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R319	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1G9	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R320	0195871R	RMC73S-2A750JR
R1H1	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R321	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1H2	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R322	0195871R	RMC73S-2A750JR
R1H3	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R323	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1H4	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R324	0195871R	RMC73S-2A750JR
R1H5	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R325	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1H6	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R326	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1H7	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R327	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1H8	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R328	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
R1H9	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R329	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1J1	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R330	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R1J2	0195248R	RES 3216 CHIP 1/8 W 000 TAPE	R331	0195883R	RES 2125 CHIP 1/16W 220J TAPE
R1J6	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R332	0195891R	RES 2125 CHIP 1/16W 470J TAPE
R1L0	0195881R	RES 2125 CHIP 1/16W 180J TAPE	R334	0195893R	RES 2125 CHIP 1/16W 560J TAPE
R1L1	0195881R	RES 2125 CHIP 1/16W 180J TAPE	R341	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1L2	0195881R	RES 2125 CHIP 1/16W 180J TAPE	R342	0114137M	REG.-CARBON FILM 1/4W 180-JB
R1L3	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R343	0195870R	RESISTOR MINI-CHIP RMC1/10 68-J TAPE
R1L4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R344	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R1L5	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	R350	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R1M1	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R351	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1M2	0195906R	RESISTOR MINI-CHIP RMC1/16 1.8K-J TAPE	R352	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R1M4	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R353	0195908R	RES 2125 CHIP 1/10W 2.2KJ TAPE
R1M5	0195906R	RESISTOR MINI-CHIP RMC1/16 1.8K-J TAPE	R355	0195250R	RES 2125 CHIP 1/16W 000 TAPE
R1M6	0700038M	RES.-CARBON FLM 1/16W 680-JB	R356	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1P1	0700027M	RES.-CARBON FLM 1/16W 100-JB	R357	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R1P2	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	R358	0195908R	RES 2125 CHIP 1/10W 2.2KJ TAPE
R1X1	0195250R	RES 2125 CHIP 1/16W 000 TAPE	R359	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1X2	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R360	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R1X3	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R361	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R1X4	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R382	0195875R	RES 2125 CHIP 1/16W 100J TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R383	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R447	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R384	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R448	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R386	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R449	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R387	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R450	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R388	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R451	0700067M	RES.-CARBON FLM 1/16W 100K-JB
R389	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R452	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R390	0195871R	RMC73S-2A750JR	R453	0700036M	RES.-CARBON FLM 1/16W 470-JB
R391	0195871R	RMC73S-2A750JR	R454	0700058M	RES.-CARBON FLM 1/16W 22K-JB
R392	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R455	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R393	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	R456	0700065M	RES.-CARBON FLM 1/16W 68K-JB
R394	0195893R	RES 2125 CHIP 1/16W 560J TAPE	R457	0700065M	RES.-CARBON FLM 1/16W 68K-JB
R401	0700027M	RES.-CARBON FLM 1/16W 100-JB	R458	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)
R402	0700027M	RES.-CARBON FLM 1/16W 100-JB	R459	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)
R403	0700027M	RES.-CARBON FLM 1/16W 100-JB	R460	0114161M	RES.-CARBON FLM 1/4W 1K-JB
R405	0700027M	RES.-CARBON FLM 1/16W 100-JB	R461	0114161M	RES.-CARBON FLM 1/4W 1K-JB
R406	0700027M	RES.-CARBON FLM 1/16W 100-JB	R462	0114161M	RES.-CARBON FLM 1/4W 1K-JB
R407	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R463	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)
R408	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R464	0114161M	RES.-CARBON FLM 1/4W 1K-JB
R409	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R465	0700065M	RES.-CARBON FLM 1/16W 68K-JB
R410	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R601	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB
R411	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R602	0700061M	RES.-CARBON FLM 1/16W 33K-JB
R412	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R603	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB
R413	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R604	0700065M	RES.-CARBON FLM 1/16W 68K-JB
R414	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R605	0700062M	RES.-CARBON FLM 1/16W 39K-JB
R415	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R611	0700062M	RES.-CARBON FLM 1/16W 39K-JB
R416	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R612	0113737M	RES.-CARBON FLM 1/2W 330JB
R417	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R613	0187104M	RES.-CARBON FLM 1/16W 43K-JB
R418	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R614	0119722M	RES.-METAL OXIDE FILM 1.0-JB/W
R419	0700067M	RES.-CARBON FLM 1/16W 100K-JB	R615	0119722M	RES.-METAL OXIDE FILM 1.0-JB/W
R420	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R616	AT01029S	RES.MTL FLM 1W 1.0 OHM
R421	0700036M	RES.-CARBON FLM 1/16W 470-JB	R617	AT01083S	RES.MTL OXIDE FLM 1W 100 OHM
R422	0700058M	RES.-CARBON FLM 1/16W 22K-JB	R618	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R423	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R619	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R424	0700065M	RES.-CARBON FLM 1/16W 68K-JB	R620	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R425	0700065M	RES.-CARBON FLM 1/16W 68K-JB	R621	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R426	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)	R622	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R427	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)	R631	0700027M	RES.-CARBON FLM 1/16W 100-JB
R428	0114161M	RES.-CARBON FLM 1/4W 1K-JB	R632	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB
R429	0114161M	RES.-CARBON FLM 1/4W 1K-JB	R651	0700044M	RES.-CARBON FLM 1/16W 1.8K-JB
R430	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R652	0700058M	RES.-CARBON FLM 1/16W 22K-JB
R431	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R658	0100063M	RES.-CARBON FLM 1/8W 820-JB
R432	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R659	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R433	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R660	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R434	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R661	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
R435	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R662	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
R436	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R663	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R437	0700067M	RES.-CARBON FLM 1/16W 100K-JB	R664	0700054M	RES.-CARBON FLM 1/16W 10K-JB
R438	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R667	0700053M	RES.-CARBON FLM 1/16W 8.2K-JB
R439	0700036M	RES.-CARBON FLM 1/16W 470-JB	R668	0700055M	RES.-CARBON FLM 1/16W 12K-JB
R440	0700058M	RES.-CARBON FLM 1/16W 22K-JB	R669	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
R441	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R670	0700063M	RES.-CARBON FLM 1/16W 47K-JB
R442	0700065M	RES.-CARBON FLM 1/16W 68K-JB	R671	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB
R443	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)	R672	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
R444	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R673	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R445	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R674	0114041M	RESISTOR-CARBON FILM SRD 1/4P 10J
R446	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R675	AT01134S	RES.MTL OXIDE FLM 1W 8.2K OHM

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R676	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R806	0119559M	RES.-MTL FLM 1/8W 10-FB
R678	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R807	0114149M	RESISTOR-CARBON FILM SRD 1/4 PF 560-J
R681	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R808	0100113M	RES.-CARBON FLM 1/8W 100K-JB
R701	0113737M	RES.-CARBON FLM 1/2W 330JB	R809	0100073M	RES.-CARBON FLM 1/8W 2.2K-JB
R702	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	R811	0144067	RS99J3Y122JF
R703	0700027M	RES.-CARBON FLM 1/16W 100-JB	R812	0144067	RS99J3Y122JF
R704	0700027M	RES.-CARBON FLM 1/16W 100-JB	R813	0100035M	RES.-CARBON FLM 1/8W 56-JB
R705	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	R814	0100035M	RES.-CARBON FLM 1/8W 56-JB
R706	0700027M	RES.-CARBON FLM 1/16W 100-JB	R815	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R708	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	R816	0113815M	RESISTOR CARBON FILM SRD1/2P-B 470K-J
R709	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE	R817	0114289M	RESISTOR-CARBON FILM SRD 1/4 P 220K-J
R710	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R818	0114289M	RESISTOR-CARBON FILM SRD 1/4 P 220K-J
R711	0100061M	RES.-CARBON FLM 1/8W 680-JB	R828	0100047M	RES.-CARBON FLM 1/8W 180-JB
R712	0196881R	RES 2125CHIP 1/10W 510-F TAPE	R829	0150001	RESISTOR-VARIABLE CARBON RV08 200-B
R713	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	R830	0100049M	RES.-CARBON FLM 1/8W 220-JB
R714	0700027M	RES.-CARBON FLM 1/16W 100-JB	R831	0100099M	RES.-CARBON FLM 1/8W 27K-JB
R715	0195875R	RES 2125 CHIP 1/16W 100J TAPE	R832	0100101M	RES.-CARBON FLM 1/8W 33K-JB
R716	0700067M	RES.-CARBON FLM 1/16W 100K-JB	R852	0100041M	RES.-CARBON FLM 1/8W 100-JB
R717	0700059M	RES.-CARBON FLM 1/16W 27K-JB	R853	0100049M	RES.-CARBON FLM 1/8W 220-JB
R718	0700058M	RES.-CARBON FLM 1/16W 22K-JB	R854	0100017M	RES.-CARBON FLM 1/8W 10-JB
R719	0700058M	RES.-CARBON FLM 1/16W 22K-JB	R855	0100025M	RES.-CARBON FLM 1/8W 22-JB
R720	0195947R	RES.2125 CHIP 1/10W 82KJ TAPE	R856	0119559M	RES.-MTL FLM 1/8W 10-FB
R721	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE	R857	0114149M	RESISTOR-CARBON FILM SRD 1/4 PF 560-J
R722	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	R858	0100113M	RES.-CARBON FLM 1/8W 100K-JB
R723	0195922R	RES 2125 CHIP 1/16W 8.2KJ TAPE	R859	0100075M	RES.-CARBON FLM 1/8W 2.7K-JB
R725	0187112M	RES.-CARBON FLM 1/16W 91K-JB	R861	0144067	RS99J3Y122JF
R726	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	R862	0144067	RS99J3Y122JF
R727	0700054M	RES.-CARBON FLM 1/16W 10K-JB	R863	0100035M	RES.-CARBON FLM 1/8W 56-JB
R728	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R864	0100035M	RES.-CARBON FLM 1/8W 56-JB
R729	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	R865	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R749	0195879R	RES 2125 CHIP 1/16W 150J TAPE	R866	0113815M	RESISTOR CARBON FILM SRD1/2P-B 470K-J
R751	0700034M	RES.-CARBON FLM 1/16W 330-JB	R867	0100069M	RES.-CARBON FLM 1/8W 1.5K-JB
R752	0700035M	RES.-CARBON FLM 1/16W 390-JB	R868	0114141M	RES.-CARBON FLM 1/4W 270-JB
R753	0113758M	RES.-CARBON FLM 1/2W 2.2K-JB	R870	0114153M	RES.-CARBON FILM 1/4W 820-JB
R754	AT00338S	RES.MTL OXIDE FLM 3W 180 OHM	R873	0100059M	RES.-CARBON FLM 1/8W 560-JB
R755	AT00338S	RES.MTL OXIDE FLM 3W 180 OHM	R878	0100045M	RES.-CARBON FLM 1/8W 150-JB
R758	0100031M	RES.-CARBON FLM 1/8W 39-JB	R879	0150001	RESISTOR-VARIABLE CARBON RV08 200-B
R759	AT01092S	RES.MTL OXIDE FLM 1W 220 OHM	R880	0100049M	RES.-CARBON FLM 1/8W 220-JB
R760	AT01092S	RES.MTL OXIDE FLM 1W 220 OHM	R881	0100099M	RES.-CARBON FLM 1/8W 27K-JB
R766	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB	R882	0100101M	RES.-CARBON FLM 1/8W 33K-JB
R767	0700058M	RES.-CARBON FLM 1/16W 22K-JB	R8A2	0100041M	RES.-CARBON FLM 1/8W 100-JB
R769	0700048M	RES.-CARBON FLM 1/16W 3.9K-JB	R8A3	0100049M	RES.-CARBON FLM 1/8W 220-JB
R770	0700067M	RES.-CARBON FLM 1/16W 100K-JB	R8A4	0100017M	RES.-CARBON FLM 1/8W 10-JB
R771	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R8A5	0100037M	RES.-CARBON FLM 1/8W 68-JB
R772	0700063M	RES.-CARBON FLM 1/16W 47K-JB	R8A6	0119559M	RES.-MTL FLM 1/8W 10-FB
R773	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R8A7	0114149M	RESISTOR-CARBON FILM SRD 1/4 PF 560-J
R775	0114181M	RESISTOR-CARBON FILM SRD 1/4 PF 6.8K-J	R8A8	0100113M	RES.-CARBON FLM 1/8W 100K-JB
R776	0700055M	RES.-CARBON FLM 1/16W 12K-JB	R8A9	0100075M	RES.-CARBON FLM 1/8W 2.7K-JB
R777	0700032M	RES.-CARBON FLM 1/16W 220-JB	R8C1	0144067	RS99J3Y122JF
R778	0188122M	RES.-CARBON FLM 220-J 1/2W	R8C2	0144067	RS99J3Y122JF
R780	AT00332S	RES.MTL OXIDE FLM 3W 100 OHM	R8C3	0100035M	RES.-CARBON FLM 1/8W 56-JB
R788	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	R8C4	0100035M	RES.-CARBON FLM 1/8W 56-JB
R802	0100041M	RES.-CARBON FLM 1/8W 100-JB	R8C5	0113725M	RESISTOR CARBON FILM SRD1/2P-B 100-J
R803	0100049M	RES.-CARBON FLM 1/8W 220-JB	R8C6	0113815M	RESISTOR CARBON FILM SRD1/2P-B 470K-J
R804	0100017M	RES.-CARBON FLM 1/8W 10-JB	R8E3	0100105M	RES.-CARBON FLM 1/8W 47K-JB
R805	0100025M	RES.-CARBON FLM 1/8W 22-JB	R8E4	0100089M	RES.-CARBON FLM 1/8W 10K-JB

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
R8E5	0100033M	RES.-CARBON FLM 1/8W 47-JB	R9A5	0100061M	RES.-CARBON FLM 1/8W 680-JB
R8E6	0100067M	RES.-CARBON FLM 1/8W 1.2K-JB	⚠ R9A6	0179639	RES.-MTL.GRAZED 1.0M-J 1W
R8E7	0100087M	RES.-CARBON FLM 1/8W 8.2K-JB	R9E1	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB
R8E8	0100085M	RES.-CARBON FLM 1/8W 6.8K-JB	R9E2	0700028M	RES.-CARBON FLM 1/16W 120-JB
R8F0	0100049M	RES.-CARBON FLM 1/8W 220-JB	R9E3	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB
R8F1	0100099M	RES.-CARBON FLM 1/8W 27K-JB	RA01	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R8F2	0100101M	RES.-CARBON FLM 1/8W 33K-JB	RA02	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
⚠ R901	0179639	RES.-MTL.GRAZED 1.0M-J 1W	RA03	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
⚠ R902	0147702	RES.WIRE WOUND 10W 0.47 OHM CEM	RA04	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R903	0113805M	RESISTOR CARBON FILM SRD1/2P-B 180K-J	RA05	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R904	0113805M	RESISTOR CARBON FILM SRD1/2P-B 180K-J	RA06	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R907	0188151M	RES.-CARBON FLM 33K-J 1/2W	RA07	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R908	0188151M	RES.-CARBON FLM 33K-J 1/2W	RA08	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R909	0114041M	RESISTOR-CARBON FILM SRD 1/4P 10J	RA09	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R910	0700038M	RES.-CARBON FLM 1/16W 680-JB	RA10	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R911	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RA11	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R912	AT01531S	METAL FILM RESISTOR(0.1OHM1/2W)	RA12	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R913	AT01531S	METAL FILM RESISTOR(0.1OHM1/2W)	RA13	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R914	AT01531S	METAL FILM RESISTOR(0.1OHM1/2W)	RA14	0195960R	RESISTOR MINI-CHIP RMC1/16 270K-J TAPE
R915	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	RA15	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R916	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RA16	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R917	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RA17	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R918	0700023M	RES.-CARBON FLM 1/16W 47-J	RA18	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R919	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB	RA19	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R922	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RA20	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
⚠ R923	0147702	RES.WIRE WOUND 10W 0.47 OHM CEM	RA21	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R924	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J	RA22	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
R925	2974432M	JUMPER WIRE (0.5 L=52MM)	RA23	0195875R	RES 2125 CHIP 1/16W 100J TAPE
⚠ R926	0147060	RES.-WIRE WOUND 2W 33-K	RA24	0195875R	RES 2125 CHIP 1/16W 100J TAPE
R927	0114205M	RESISTOR-CARBON FILM SRD 1/4 P 15K-J	RA25	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R928	0114205M	RESISTOR-CARBON FILM SRD 1/4 P 15K-J	RA26	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
R929	AT01118S	RES.MTL OXIDE FLM 1W 2.2K OHM	RE01	0100065M	RES.-CARBON FLM 1/8W 1K-JB
R945	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RE02	0700055M	RES.-CARBON FLM 1/16W 12K-JB
R946	0700027M	RES.-CARBON FLM 1/16W 100-JB	RE03	0700066M	RES.-CARBON FLM 1/16W 82K-JB
R947	0700044M	RES.-CARBON FLM 1/16W 1.8K-JB	RE04	0700024M	RES.-CARBON FLM 1/16W 56-J
R948	0700024M	RES.-CARBON FLM 1/16W 56-J	RE05	0114147M	RES.-CARBON FLM 1/4W 470-JB
R949	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RE06	0700018M	RES.-CARBON FLM 1/16W 22-J
R956	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	RE07	0700054M	RES.-CARBON FLM 1/16W 10K-JB
⚠ R979	0700038M	RES.-CARBON FLM 1/16W 680-JB	RE08	0700054M	RES.-CARBON FLM 1/16W 10K-JB
⚠ R981	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	RE09	0700055M	RES.-CARBON FLM 1/16W 12K-JB
R982	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RE10	0700055M	RES.-CARBON FLM 1/16W 12K-JB
R983	0700036M	RES.-CARBON FLM 1/16W 470-JB	RE11	0700027M	RES.-CARBON FLM 1/16W 100-JB
R984	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RE12	0700024M	RES.-CARBON FLM 1/16W 56-J
R985	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RE13	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
R986	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RE16	0700027M	RES.-CARBON FLM 1/16W 100-JB
R987	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RE17	0114171M	RES.-CARBON FLM 1/4W 2.7K-JB
R988	0700057M	RES.-CARBON FLM 1/16W 18K-JB	RE18	0700065M	RES.-CARBON FLM 1/16W 68K-JB
R989	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB	RE19	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB
R990	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RE20	0700024M	RES.-CARBON FLM 1/16W 56-J
R992	0100077M	RES.-CARBON FLM 1/8W 3.3K-JB	RE21	0114131M	RES.-CARBON FLM 1/4W 100-JB
R993	0188132M	RES.-CARBON FLM 1.2K-J 1/2W	RE23	0114153M	RES.-CARBON FILM 1/4W 820-JB
R994	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RE24	0700027M	RES.-CARBON FLM 1/16W 100-JB
R995	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RE27	0113742M	RES.-CARBON FLM 1/2W 470-JB
R996	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RE28	0700017M	RES.-CARBON FLM 1/16W 18-J
R9A0	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	RE29	0113750M	RES.-CARBON FLM 1/2W 1K-JB
R9A1	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	RE31	0700014M	RES.-CARBON FLM 1/16W 10-J

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RE32	0700014M	RES.-CARBON FLM 1/16W 10-J	RF27	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB
RE33	0114041M	RESISTOR-CARBON FILM SRD 1/4P 10J	RF35	AT00361S	RES.MTL OXIDE FLM 3W 1.2K OHM
RE50	0110237S	RES.-MTL OXIDE FLM 2W 470-J	RF36	0188171M	RES.-CARBON FLM 1M-JB 1/2W
RE51	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RF40	0114163M	RES.-CARBON FLM 1/4W 1.2K-JB
RE52	0100023M	RES.-CARBON FLM 1/8W 18-JB	RG01	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RE53	0700027M	RES.-CARBON FLM 1/16W 100-JB	RG02	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
RE54	0700027M	RES.-CARBON FLM 1/16W 100-JB	RG03	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RE55	0700067M	RES.-CARBON FLM 1/16W 100K-JB	RG04	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
RE56	0100065M	RES.-CARBON FLM 1/8W 1K-JB	RG05	0187086M	RES.-CARBON FLM 1/16W 7.5K-JB
RE57	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J	RG06	0195921R	RESISTOR MINI-CHIP RMC1/16 7.5K-J TAPE
RE60	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J	RG07	0195921R	RESISTOR MINI-CHIP RMC1/16 7.5K-J TAPE
RE61	0100065M	RES.-CARBON FLM 1/8W 1K-JB	RG08	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RE62	0100017M	RES.-CARBON FLM 1/8W 10-JB	RG09	0187086M	RES.-CARBON FLM 1/16W 7.5K-JB
RE66	0100017M	RES.-CARBON FLM 1/8W 10-JB	RG10	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RE67	0114057M	RESISTOR-CARBON FILM SRD 1/4 PF 47-J	RG11	0195975R	RMC73S-2A105JR
RE68	0114057M	RESISTOR-CARBON FILM SRD 1/4 PF 47-J	RG12	0195975R	RMC73S-2A105JR
RE69	0113705M	RESISTOR CARBON FILM SRD1/2P-B 15-J	RG13	0195975R	RMC73S-2A105JR
RE70	0113705M	RESISTOR CARBON FILM SRD1/2P-B 15-J	RG14	0195975R	RMC73S-2A105JR
RE71	0100029M	RES.-CARBON FLM 1/8W 33-JB	RG15	0195975R	RMC73S-2A105JR
RE72	0100029M	RES.-CARBON FLM 1/8W 33-JB	RG16	0195975R	RMC73S-2A105JR
RE73	0100095M	RES.-CARBON FLM 1/8W 18K-JB	RG17	0195975R	RMC73S-2A105JR
RE74	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J	RG18	0195975R	RMC73S-2A105JR
RE75	0114283M	RES.-CARBON FLM 1/4W 120K-JB	RG19	0195975R	RMC73S-2A105JR
RE76	0100095M	RES.-CARBON FLM 1/8W 18K-JB	RG20	0195975R	RMC73S-2A105JR
RE77	0110325S	RES.-MTL OXIDE FLM 3W 150-JS	RG21	0195975R	RMC73S-2A105JR
REE5	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J	RG22	0195975R	RMC73S-2A105JR
REE6	0700065M	RES.-CARBON FLM 1/16W 68K-JB	RG23	0195975R	RMC73S-2A105JR
REE7	0700064M	RES.-CARBON FLM 1/16W 56K-JB	RG24	0195975R	RMC73S-2A105JR
REF0	0100113M	RES.-CARBON FLM 1/8W 100K-JB	RG25	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
REF1	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RG26	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
REF4	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RG27	0114149M	RESISTOR-CARBON FILM SRD 1/4 PF 560-J
RF02	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RG28	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF03	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RG29	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF04	0700067M	RES.-CARBON FLM 1/16W 100K-JB	RG30	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF05	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RG31	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF06	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	RG32	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF07	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RG33	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF08	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB	RG34	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF09	0700067M	RES.-CARBON FLM 1/16W 100K-JB	RG35	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF10	0700056M	RES.-CARBON FLM 1/16W 15K-JB	RG36	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF11	0700025M	RES.-CARBON FLM 1/16W 68-J	RG37	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF12	0700027M	RES.-CARBON FLM 1/16W 100-JB	RG38	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF13	AT01454	RES.MTL GRAZD FLM 1W 180K OHM	RG39	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF14	AT01454	RES.MTL GRAZD FLM 1W 180K OHM	RG40	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF15	AT01454	RES.MTL GRAZD FLM 1W 180K OHM	RG41	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF16	0179636	RES.-MTL GRAZED 560K 1W	RG42	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF17	0179636	RES.-MTL GRAZED 560K 1W	RG43	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF18	0700057M	RES.-CARBON FLM 1/16W 18K-JB	RG44	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF19	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	RG45	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF20	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RG46	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF21	0179636	RES.-MTL GRAZED 560K 1W	RG47	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF22	0179636	RES.-MTL GRAZED 560K 1W	RG48	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF23	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RG49	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RF24	0700039M	RES.-CARBON FLM 1/16W 820-JB	RG50	0700063M	RES.-CARBON FLM 1/16W 47K-JB
RF25	0179635	RES.-MTL GRAZED 470K 1W	RG51	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RF26	0113783M	RES.-CARBON FLM 1/2W 22K-JB	RG52	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RG53	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RH24	0100079M	RES.-CARBON FLM 1/8W 3.9K-JB
RG54	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RH25	0114209M	RESISTOR-CARBON FILM SRD 1/4 PF 22K-J
RG55	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH26	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RG56	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE	RH27	0700063M	RES.-CARBON FLM 1/16W 47K-JB
RG57	0700048M	RES.-CARBON FLM 1/16W 3.9K-JB	RH28	0700063M	RES.-CARBON FLM 1/16W 47K-JB
RG58	0195921R	RESISTOR MINI-CHIP RMC1/16 7.5K-J TAPE	RH29	0700027M	RES.-CARBON FLM 1/16W 100-JB
RG59	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RH30	0700027M	RES.-CARBON FLM 1/16W 100-JB
RG60	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	⚠ RH31	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RG61	0195921R	RESISTOR MINI-CHIP RMC1/16 7.5K-J TAPE	⚠ RH32	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J
RG62	0195975R	RMC73S-2A105JR	RH33	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RG63	0195975R	RMC73S-2A105JR	⚠ RH34	0114281M	RESISTOR-CARBON FILM SRD 1/4P 100K-J
RG64	0195975R	RMC73S-2A105JR	⚠ RH35	0119639M	RES.-MTL FLM 1/8W 22K-FB
RG65	0195975R	RMC73S-2A105JR	⚠ RH36	0119639M	RES.-MTL FLM 1/8W 22K-FB
RG66	0195975R	RMC73S-2A105JR	⚠ RH37	0119639M	RES.-MTL FLM 1/8W 22K-FB
RG67	0195975R	RMC73S-2A105JR	⚠ RH38	0119625M	RES.-MTL FLM 1/8W 5.6K-FB
RG68	0195975R	RMC73S-2A105JR	⚠ RH39	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RG69	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH40	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RG70	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	⚠ RH42	0100129M	RES.-CARBON FLM 1/8W 470K-JB
RG71	0114149M	RESISTOR-CARBON FILM SRD 1/4 PF 560-J	⚠ RH43	0114143M	RES.-CARBON FLM 1/4W 330-JB
RG72	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	⚠ RH44	AW00208	TRIMMER RESISTOR 100KOHM 1/2W
RG73	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	⚠ RH45	0119653M	RES.-MTL FLM 1/8W 82K-FB
RG74	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RH47	0700063M	RES.-CARBON FLM 1/16W 47K-JB
RG75	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH48	0179597M	RES.-MTL.GRAZED FILM 5.6M-J TAPE
RG76	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH49	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB
RG77	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RH50	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RG78	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RH51	0700055M	RES.-CARBON FLM 1/16W 12K-JB
RG79	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH52	0700067M	RES.-CARBON FLM 1/16W 100K-JB
RG80	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH53	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB
RG81	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	⚠ RH54	0187088M	RES.-CARBON FLM 1/16W 9.1K-JB
RG82	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	⚠ RH55	0187106M	RES.-CARBON FLM 1/16W 51K-JB
RG83	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH56	0100091M	RES.-CARBON FLM 1/8W 12K-JB
RG84	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RH58	0113789M	RESISTOR-CARBON FILM SRD1/2P-B 39K-J
RG85	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RH59	0113789M	RESISTOR-CARBON FILM SRD1/2P-B 39K-J
RG86	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RH60	0700036M	RES.-CARBON FLM 1/16W 470-JB
RH01	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RH61	0100069M	RES.-CARBON FLM 1/8W 1.5K-JB
RH02	0113731M	RES.-CARBON FLM 1/2W 180-JB	RH62	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RH03	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RH63	0700063M	RES.-CARBON FLM 1/16W 47K-JB
RH04	0700027M	RES.-CARBON FLM 1/16W 100-JB	RH64	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RH05	0700053M	RES.-CARBON FLM 1/16W 8.2K-JB	RH65	0700063M	RES.-CARBON FLM 1/16W 47K-JB
RH06	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RH66	0700066M	RES.-CARBON FLM 1/16W 82K-JB
RH07	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB	RH67	0113744M	RESISTOR CARBON FILM SRD1/2P-B 560-J
RH08	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RH68	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RH09	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	RH70	0188171M	RES.-CARBON FLM 1M-JB 1/2W
RH10	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RH72	0100123M	RES.-CARBON FLM 1/8W 270K-JB
RH11	0700067M	RES.-CARBON FLM 1/16W 100K-JB	⚠ RH73	0119653M	RES.-MTL FLM 1/8W 82K-FB
RH12	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RH77	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB
RH13	0700039M	RES.-CARBON FLM 1/16W 820-JB	RH80	0119653M	RES.-MTL FLM 1/8W 82K-FB
RH14	0700062M	RES.-CARBON FLM 1/16W 39K-JB	RK01	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH15	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RK02	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH16	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RK03	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH17	0700062M	RES.-CARBON FLM 1/16W 39K-JB	RK04	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH18	0114057M	RESISTOR-CARBON FILM SRD 1/4 PF 47-J	RK05	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH19	0188124M	RES.-CARBON FLM 1/4W 330-JB	RK06	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
⚠ RH20	0148052	RES.-WIRE WOUND 0.68-K 3W	RK07	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH22	0119732M	RES.-METAL OXIDE FILM 1.2-JB	RK08	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RH23	0119732M	RES.-METAL OXIDE FILM 1.2-JB	RK09	0100057M	RES.-CARBON FLM 1/8W 470-JB

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RK10	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB	RL21	0100121M	RES.-CARBON FLM 1/8W 220K-JB
RK11	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RL22	0100133M	RES.-CARBON FLM 1/8W 680K-JB
RK12	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RL23	0100129M	RES.-CARBON FLM 1/8W 470K-JB
RK13	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RL24	0100133M	RES.-CARBON FLM 1/8W 680K-JB
RK17	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB	RL25	0100121M	RES.-CARBON FLM 1/8W 220K-JB
RK18	0700048M	RES.-CARBON FLM 1/16W 3.9K-JB	RL26	0100133M	RES.-CARBON FLM 1/8W 680K-JB
RK22	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RL27	0100129M	RES.-CARBON FLM 1/8W 470K-JB
RK23	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	RL30	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK24	0700044M	RES.-CARBON FLM 1/16W 1.8K-JB	RL31	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK25	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RL32	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK26	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RL33	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK27	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RL34	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK28	0700027M	RES.-CARBON FLM 1/16W 100-JB	RL35	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK29	0700027M	RES.-CARBON FLM 1/16W 100-JB	RL36	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK30	0700027M	RES.-CARBON FLM 1/16W 100-JB	RL37	0700027M	RES.-CARBON FLM 1/16W 100-JB
RK31	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RL38	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB
RK32	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RM01	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK33	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RM02	0700058M	RES.-CARBON FLM 1/16W 22K-JB
RK34	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RM03	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB
RK35	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RM04	0100065M	RES.-CARBON FLM 1/8W 1K-JB
RK36	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RM05	0100065M	RES.-CARBON FLM 1/8W 1K-JB
RK37	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RM06	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK38	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RM07	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB
RK39	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RM08	0700046M	RES.-CARBON FLM 1/16W 2.7K-JB
RK40	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RM09	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB
RK42	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)	RM10	0100129M	RES.-CARBON FLM 1/8W 470K-JB
RK43	0110229S	RES.-MTL OXIDE FLM 220-JS	RM11	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK44	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RM12	0100125M	RES.-CARBON FLM 1/8W 330K-JB
RK46	AT01545S	METAL FILM RESISTOR(1.5OHM 1W)	RM13	0114161M	RES.-CARBON FLM 1/4W 1K-JB
RK47	0110225S	RES.MTL OXIDE FLM 150-JS 2W	RM14	0100125M	RES.-CARBON FLM 1/8W 330K-JB
RK48	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RM15	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RK50	AT01549S	METAL FILM RESISTOR(2.2OHM 1W)	RM20	0100041M	RES.-CARBON FLM 1/8W 100-JB
RK51	0110229S	RES.-MTL OXIDE FLM 220-JS	RM21	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK52	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RM22	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK54	AT01545S	METAL FILM RESISTOR(1.5OHM 1W)	RM23	0700064M	RES.-CARBON FLM 1/16W 56K-JB
RK55	0110225S	RES.MTL OXIDE FLM 150-JS 2W	RM24	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB
RK56	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RM25	0100123M	RES.-CARBON FLM 1/8W 270K-JB
RK58	AT01554S	METAL FILM RESISTOR(3.3OHM 1W)	RM26	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB
RK59	0110229S	RES.-MTL OXIDE FLM 220-JS	RM27	0700064M	RES.-CARBON FLM 1/16W 56K-JB
RK60	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RM28	0100123M	RES.-CARBON FLM 1/8W 270K-JB
RK62	AT01547S	METAL FILM RESISTOR(1.8OHM 1W)	RM29	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK63	0110225S	RES.MTL OXIDE FLM 150-JS 2W	RM30	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK64	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RM31	0100041M	RES.-CARBON FLM 1/8W 100-JB
RK65	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RM35	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK90	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RM38	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RK92	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RM40	0700067M	RES.-CARBON FLM 1/16W 100K-JB
RK99	0188103M	RES.-CARBON FLM 8.2-J 1/2W	RN01	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB
RL10	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN02	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RL11	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN03	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RL12	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN04	0700067M	RES.-CARBON FLM 1/16W 100K-JB
RL13	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN05	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB
RL14	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN06	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RL15	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN07	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB
RL16	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN08	0700044M	RES.-CARBON FLM 1/16W 1.8K-JB
RL17	0100129M	RES.-CARBON FLM 1/8W 470K-JB	RN09	0700061M	RES.-CARBON FLM 1/16W 33K-JB
RL20	0100133M	RES.-CARBON FLM 1/8W 680K-JB	RN10	0700057M	RES.-CARBON FLM 1/16W 18K-JB

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RN11	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RP52	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RN12	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	⚠ RP53	0700039M	RES.-CARBON FLM 1/16W 820-JB
RN13	0700054M	RES.-CARBON FLM 1/16W 10K-JB	⚠ RP54	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB
RN14	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RP55	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RN15	0700064M	RES.-CARBON FLM 1/16W 56K-JB	RP56	2974432M	JUMPER WIRE (0.5 L=52MM)
RN16	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RP57	0700032M	RES.-CARBON FLM 1/16W 220-JB
RN17	0700056M	RES.-CARBON FLM 1/16W 15K-JB	RP58	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RN18	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RP59	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB
RN19	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RP60	0700038M	RES.-CARBON FLM 1/16W 680-JB
RN20	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RP62	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RP01	0188165M	RES.-CARBON FLM 390K-J 1/2W	RP63	0100069M	RES.-CARBON FLM 1/8W 1.5K-JB
RP05	AT01136S	RES.MTL OXIDE FLM 1W 10K OHM	RP64	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RP06	AT01136S	RES.MTL OXIDE FLM 1W 10K OHM	RS01	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RP07	0700038M	RES.-CARBON FLM 1/16W 680-JB	RS02	0700027M	RES.-CARBON FLM 1/16W 100-JB
RP08	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RS03	0700027M	RES.-CARBON FLM 1/16W 100-JB
RP09	0188104M	RES.-CARBON FLM 1/2W 10-JB	RS04	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP10	AT01531S	METAL FILM RESISTOR(0.1OHM1/2W)	RS05	0700054M	RES.-CARBON FLM 1/16W 10K-JB
RP11	AT01531S	METAL FILM RESISTOR(0.1OHM1/2W)	RS06	0700027M	RES.-CARBON FLM 1/16W 100-JB
RP12	AT01531S	METAL FILM RESISTOR(0.1OHM1/2W)	RS07	0700027M	RES.-CARBON FLM 1/16W 100-JB
RP13	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	RS08	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP14	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RS09	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RP15	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RS10	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RP16	0700023M	RES.-CARBON FLM 1/16W 47-J	RS12	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RP17	0700042M	RES.-CARBON FLM 1/16W 1.2K-JB	RS13	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RP19	0700029M	RES.-CARBON FLM 1/16W 150-JB	RS14	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RP20	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RS15	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RP21	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RS16	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
RP22	0100071M	RES.-CARBON FLM 1/8W 1.8K-JB	RS17	0700027M	RES.-CARBON FLM 1/16W 100-JB
RP23	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	RS18	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RP24	0700051M	RES.-CARBON FLM 1/16W 5.6K-JB	RS19	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RP25	0700055M	RES.-CARBON FLM 1/16W 12K-JB	RS20	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RP26	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	RS21	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RP27	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	RS22	0700048M	RES.-CARBON FLM 1/16W 3.9K-JB
RP28	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RS23	0700048M	RES.-CARBON FLM 1/16W 3.9K-JB
RP29	0100047M	RES.-CARBON FLM 1/8W 180-JB	RS24	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RP30	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RS25	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RP31	0119695M	RES.-MTL OXIDE FLM 1W 0.47-F	RS26	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP32	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RS27	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RP33	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RS28	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
RP34	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RS29	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RP35	0188156M	RES.-CARBON FLM 82K-J 1/2W	RS30	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP36	0700049M	RES.-CARBON FLM 1/16W 4.7K-JB	RS31	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE
RP37	0100091M	RES.-CARBON FLM 1/8W 12K-JB	RS32	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE
RP38	0188154M	RES.-CARBON FLM 1/2W 56K-JB	RS33	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RP39	0188154M	RES.-CARBON FLM 1/2W 56K-JB	RS34	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RP40	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RS35	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RP41	0700047M	RES.-CARBON FLM 1/16W 3.3K-JB	RS36	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RP42	0700043M	RES.-CARBON FLM 1/16W 1.5K-JB	RS37	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RP43	0700045M	RES.-CARBON FLM 1/16W 2.2K-JB	RS38	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP44	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RS39	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP45	0700058M	RES.-CARBON FLM 1/16W 22K-JB	RS40	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RP46	0100091M	RES.-CARBON FLM 1/8W 12K-JB	RS41	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RP47	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RS42	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RP48	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RS43	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RP49	0700052M	RES.-CARBON FLM 1/16W 6.8K-JB	RS44	0195939R	RMC73S-2A393JR
RP50	0700063M	RES.-CARBON FLM 1/16W 47K-JB	RS45	0195943R	RES.2125 CHIP 1/16W 56KJ TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PART NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RS46	0195918R	RES 2125 CHIP 1/16W 5.6KJ TAPE	RSE5	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE
RS47	0195932R	RES. 2125CHIP 1/10W 20KJ TAPE	RSE6	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS48	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSE7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS49	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSE8	0195887R	RES 2125 CHIP 1/16W 330J TAPE
RS50	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSE9	0195883R	RES 2125 CHIP 1/16W 220J TAPE
RS51	0195975R	RMC73S-2A105JR	RSF1	0195883R	RES 2125 CHIP 1/16W 220J TAPE
RS52	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSF2	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS53	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB	RSF3	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS54	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSF4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS55	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSF5	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS56	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSF6	0195883R	RES 2125 CHIP 1/16W 220J TAPE
RS57	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSF7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS58	0100123M	RES.-CARBON FLM 1/8W 270K-JB	RSF8	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS59	0100123M	RES.-CARBON FLM 1/8W 270K-JB	RSF9	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS60	0100123M	RES.-CARBON FLM 1/8W 270K-JB	RSH1	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS61	0100123M	RES.-CARBON FLM 1/8W 270K-JB	RSH2	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS62	0100123M	RES.-CARBON FLM 1/8W 270K-JB	RSH3	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS63	0179561M	RESISTOR-METAL GRAZED FILM 2.2M-J TAPE	RSH4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RS64	0195929R	RES 2125 CHIP 1/16W 15KJ TAPE	RSH5	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS65	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE	RSH6	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS66	0100123M	RES.-CARBON FLM 1/8W 270K-JB	RSH7	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS67	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RSH8	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS68	0700054M	RES.-CARBON FLM 1/16W 10K-JB	RSH9	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE
RS69	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RSJ1	0700027M	RES.-CARBON FLM 1/16W 100-JB
RS70	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RSJ2	0700027M	RES.-CARBON FLM 1/16W 100-JB
RS71	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RSJ3	0700027M	RES.-CARBON FLM 1/16W 100-JB
RS72	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RSJ4	0700027M	RES.-CARBON FLM 1/16W 100-JB
RS73	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSJ5	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RS74	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSJ6	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RS75	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSJ7	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RS77	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSJ8	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RS78	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSJ9	0700041M	RES.-CARBON FLM 1/16W 1.0K-JB
RS80	0195929R	RES 2125 CHIP 1/16W 15KJ TAPE	RSK1	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RS81	0195929R	RES 2125 CHIP 1/16W 15KJ TAPE	RSK2	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RSA1	0195939R	RMC73S-2A393JR	RSK3	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RSA2	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSK4	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RSA3	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RSK5	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RSA4	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSK6	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RSA5	0195887R	RES 2125 CHIP 1/16W 330J TAPE	RSK7	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RSA6	0195939R	RMC73S-2A393JR	RSK8	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RSA7	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RSK9	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RSA8	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSL1	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RSA9	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSL2	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RSC1	0195887R	RES 2125 CHIP 1/16W 330J TAPE	RSL3	0195248R	RES 3216 CHIP 1/8 W 000 TAPE
RSC2	0195883R	RES 2125 CHIP 1/16W 220J TAPE	RSX1	0700027M	RES.-CARBON FLM 1/16W 100-JB
RSC3	0195883R	RES 2125 CHIP 1/16W 220J TAPE	RSX2	0700027M	RES.-CARBON FLM 1/16W 100-JB
RSC4	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSX3	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RSC5	0195950R	RES 2125 CHIP 1/16W 100KJ TAPE	RSX4	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RSC6	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSX5	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RSC7	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RSX6	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RSC8	0195939R	RMC73S-2A393JR	RX39	0195935R	RES 2125 CHIP 1/16W 27K-J TAPE
RSC9	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RX40	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE
RSE1	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RX41	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RSE2	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RX42	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE
RSE3	0195887R	RES 2125 CHIP 1/16W 330J TAPE	RX44	0195935R	RES 2125 CHIP 1/16W 27K-J TAPE
RSE4	0195939R	RMC73S-2A393JR	RX45	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PART NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
RX46	0195875R	RES 2125 CHIP 1/16W 100J TAPE	RY58	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX47	0195912R	RES 2125 CHIP 1/16W 3.3KJ TAPE	RY61	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RX49	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RY62	0195910R	RES.2125 CHIP 1/16W 2.7KJ TAPE
RX50	0195941R	RESISTOR 2125 CHIP 1/16W 47KJ TAPE	RY63	0195933R	RES.2125 CHIP 1/16W 22KJ TAPE
RX51	0195875R	RES 2125 CHIP 1/16W 100J TAPE	RY64	0195931R	RES 2125 CHIP 1/16W 18KJ TAPE
RX52	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE	RY67	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RX68	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY69	0195887R	RES 2125 CHIP 1/16W 330J TAPE
RX69	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY70	0195893R	RES 2125 CHIP 1/16W 560J TAPE
RX75	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY71	0195893R	RES 2125 CHIP 1/16W 560J TAPE
RX76	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY72	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RX77	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY73	0195891R	RES 2125 CHIP 1/16W 470J TAPE
RX78	0195935R	RES 2125 CHIP 1/16W 27K-J TAPE	RY76	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX79	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	RY80	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RX80	0195902R	RES 2125 CHIP 1/16W 1.2KJ TAPE	RY81	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RX81	0195914R	RES 2125 CHIP 1/16W 3.9KJ TAPE	RY82	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE
RX82	0195925R	RES 2125 CHIP 1/16W 10KJ TAPE	RY83	0195862R	RES 2125 CHIP 1/16W 33J TAPE
RX83	0195891R	RES 2125 CHIP 1/16W 470J TAPE	RY90	0195927R	RES 2125 CHIP 1/16W 12KJ TAPE
RX84	0195891R	RES 2125 CHIP 1/16W 470J TAPE	RY92	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX85	0195891R	RES 2125 CHIP 1/16W 470J TAPE	RY93	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX86	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY95	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX87	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY96	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX88	0195250R	RES 2125 CHIP 1/16W 000 TAPE	RY97	0195250R	RES 2125 CHIP 1/16W 000 TAPE
RX89	0195875R	RES 2125 CHIP 1/16W 100J TAPE	RZ98	0195875R	RES 2125 CHIP 1/16W 100J TAPE
RX90	0195875R	RES 2125 CHIP 1/16W 100J TAPE			
RX91	0195875R	RES 2125 CHIP 1/16W 100J TAPE			
RX97	0195875R	RES 2125 CHIP 1/16W 100J TAPE			**TRANSFORMERS**
RX98	0195875R	RES 2125 CHIP 1/16W 100J TAPE			
RX99	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	⚠ T751	2272941	V DRIVE TRANS
RXE1	0195908R	RES.2125 CHIP 1/10W 2.2KJ TAPE	T752	BT01231	PT-EI30F5US-HOT(DP8X)
RXE7	0195250R	RES 2125 CHIP 1/16W 000 TAPE	⚠ T901	BT01262	PT-EE42F15US-DP86-TDK
RXE8	0195875R	RES 2125 CHIP 1/16W 100J TAPE	⚠ TH01	BW00633	HFL1735YP-RC 32K/2H
RY01	0195250R	RES 2125 CHIP 1/16W 000 TAPE	⚠ TP91	BT01271	PT-EE49F17U-240W-TDK
RY03	0195916R	RESISTOR 2125 CHIP 1/16W 4.7KJ TAPE			
RY04	0195875R	RES 2125 CHIP 1/16W 100J TAPE			
RY05	0195250R	RES 2125 CHIP 1/16W 000 TAPE			**SWITCHES**
RY09	0195920R	RES 2125 CHIP 1/16W 6.8KJ TAPE			
RY15	0195250R	RES 2125 CHIP 1/16W 000 TAPE	⚠ S901	FJ00071	AC POWER RELAY ALK3213
RY17	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	S902	FJ00071	AC POWER RELAY ALK3213
RY18	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	S903	FJ00071	AC POWER RELAY ALK3213
RY20	0195875R	RES 2125 CHIP 1/16W 100J TAPE	SK01	FE00061	1P TACT SWITCH
RY26	0195875R	RES 2125 CHIP 1/16W 100J TAPE	SM01	FE00001R	PUSH SWITCH
RY27	0195920R	RES 2125 CHIP 1/16W 6.8KJ TAPE	SM02	FE00001R	PUSH SWITCH
RY32	0195250R	RES 2125 CHIP 1/16W 000 TAPE	SM03	FE00001R	PUSH SWITCH
RY34	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	SM04	FE00001R	PUSH SWITCH
RY35	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	SM05	FE00001R	PUSH SWITCH
RY37	0195875R	RES 2125 CHIP 1/16W 100J TAPE	SM06	FE00001R	PUSH SWITCH
RY39	0195250R	RES 2125 CHIP 1/16W 000 TAPE	SM07	FE00001R	PUSH SWITCH
RY40	0195250R	RES 2125 CHIP 1/16W 000 TAPE	SM09	FE00091	SWP01N01-EVQQKH08Q
RY41	0195250R	RES 2125 CHIP 1/16W 000 TAPE			
RY43	0195875R	RES 2125 CHIP 1/16W 100J TAPE			
RY44	0195920R	RES 2125 CHIP 1/16W 6.8KJ TAPE			MISCELLANEOUS
RY50	0195250R	RES 2125 CHIP 1/16W 000 TAPE			
RY52	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	1	PH04453	CONTROL PANEL ASSY
RY53	0195900R	RES 2125 CHIP 1/16W 1KJ TAPE	2	NA11701	LENS/CRT METAL
RY55	0195875R	RES 2125 CHIP 1/16W 100J TAPE	3	NJ01361	SENSOR HOLDER BASE
RY57	0195250R	RES 2125 CHIP 1/16W 000 TAPE	4	NJ01301	SENSOR HOLDER

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PART NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
5	FT00011	SOLAR BATTERY(AM3011)	#125	NA03101	CHASSIS PWB BKTAP5CR1SECC20/20E
6	33200051	BACK CENTER BAR 60"	#131	NA03122	CHASSIS PWB BKTAP7XFA2SECC20/20E
7	KS00163	MIRROR	#131	PH06493	DECO. PLATE AV DP86B PVC
8	33010273	BARRIER BOARD	#141	4519511	4X12 B TAPPING SCREW STEEL
9	QG00831	60SBX REAR COVER ASS'Y	#142	4159423	SCR NO 3X12 FL/FLT
10	55020054	FRONT BOARD ASSY	#145	4519503	3X12 B TAPPING SCREW SWCH15A
11	NT00954	SCREEN FRAME ASS'Y	#145	4531761	SCREEN 3X16 TAPPING W/S-WASHER STEEL
12	H311233	60SDX88B DECO FRAME	#145	4520771	HEXAGON HEAD TAPPING SCREW 4*18
13	UX03076	LENS ASS'Y (60 INCH SBB.B)	#147	4159423	SCR NO 3X12 FL/FLT
14	UX03075	LENS ASS'Y (60INCH SBB.G)	#151	NA40721	SP PWB SUP. BRACKETDP85ASECC20/20E
15	UX03074	LENS ASS'Y(60INCH SBB.R)	#153	4159423	SCR NO 3X12 FL/FLT
16	H512236	LOWER REAR BOARD 60SDX	#161	3875341	LEAD CLAMPER
17	KR00631	SCREEN ASS'Y 60"	#161	H311141	CABINET WIRE CLAMP
19	NA11681	MIRROR METAL A	#163	3813121	LEAD CLAMPER 2135 PA
20	NA11691	MIRROR METAL B	#165	MD04641	TERMINAL PWB SHIELD DP85 TC-30 T=0.4
21	UE04514	(60) LENS CRT B. ASS'Y	#165	4336491	CASTER METAL
22	UE04515	(60) LENS CRT B. ASS'Y	#167	3787485	PWB HOLDER 4L
23	UE04516	(60) LENS CRT B. ASS'Y	#181	NA40711	2H PWB SUPPORT METAL A SECC20/20E
	UE05101	60SDX LENS CRT CHASSIS B.ASY	#183	4519503	3X12 B TAPPING SCREW SWCH15A
	H310355	DIG. CONV. JIG SCREEN (PRO. MODE)	#185	3782714	PCB SUPPORT 10S NYLON
	H312181	DIG. CONV. JIG SCREEN (HD MODE)	#210	4524911	HEX. FLANGE HEAD B T-S 4*12 SWCH16A
⚠ E10B	GX00193	MAG-VM(C-C) 36.5 4.5U	#222	4524911	HEX. FLANGE HEAD B T-S 4*12 SWCH16A
⚠ E10G	GX00193	MAG-VM(C-C) 36.5 4.5U	#226	NJ01313	WIRE HOLDER (360MM)
⚠ E10R	GX00193	MAG-VM(C-C) 36.5 4.5U	#231	NJ02991	CPT SOCKET HOLDER 36.5 NYLON 94V-0
⚠ E12B	BY01221	DEFLECTION YOKE (36.5)	#236	8711625	SCREW(4*25)
⚠ E12G	BY01221	DEFLECTION YOKE (36.5)	#240	3876031H	WIRE CLAMP W
⚠ E12R	BY01221	DEFLECTION YOKE (36.5)	#240	4159421	SCREW- 3X8 TAPPING WITH WASHER
⚠ E801	EY00601	CRT SOCKET (TYPE HPS0630-010300)	#250	3744172	CLAMP 20
⚠ E851	EY00601	CRT SOCKET (TYPE HPS0630-010300)	#310	4527821	BOLT M6X20 WITH WASHER SWRM12A
⚠ E8A1	EY00601	CRT SOCKET (TYPE HPS0630-010300)	#319	H810202	SCREW #8X3/4 HEX P.B.
⚠ E901	EV00551	CORD UL/CSA 302 5199	#332	4520772	HEX. HEAD TAPPING SCREW 4*14 SWCH16A
⚠ ESF	2958151	CON. RE01X-X3239A901(FOCUS WIRE)	#345	3875341	LEAD CLAMPER
⚠ G801	CJ00071R	SEMICONDUCTOR AG15PC-152FS-K2M	#350	81481112	SCREW # 8 X 1 1/2" DRYWALL
⚠ G802	CJ00071R	SEMICONDUCTOR AG15PC-152FS-K2M	#380	H420691	FOCUS METAL AP5X
⚠ G851	CJ00071R	SEMICONDUCTOR AG15PC-152FS-K2M	#394	81180138	NO. 8X13/8 H.H.S.
⚠ G852	CJ00071R	SEMICONDUCTOR AG15PC-152FS-K2M	#431	98008006	STAPLE BEA 80/06
⚠ G8A1	CJ00071R	SEMICONDUCTOR AG15PC-152FS-K2M	#455	NJ02252	SPEAKER HOLDER SBX
⚠ G8A2	CJ00071R	SEMICONDUCTOR AG15PC-152FS-K2M	#50	MQ00313	MIRROR RUBBER SPACER(SIDE)
⚠ GF01	CJ00072R	SEMICONDUCTOR 252FB-K2M	#60	H390061	MIRROR SPECIAL CUSHION
⚠ PA	ED01851	PLUG 5289-2A	#70	4524912	HEX. FLANGE HEAD B T-S 4*16 SWCH16A
⚠ U401	GK00281	SP-05M SPEAKER (TWEETER)	#72	4137977	4*25 SELF-TAPPING SCREW
⚠ U402	GK00271	SP-12M SPEAKER (WOOFER)	#75	81270058	#7X5/8 FLAT
⚠ U403	GK00291	SP-10M SPEAKER (CENTER)	#85	4520771	HEX HEAD TAPPING SCREW 4*18
⚠ U404	GK00291	SP-10M SPEAKER (CENTER)	18a	H311841	CENTER SP. COVER
⚠ U405	GK00281	SP-05M SPEAKER (TWEETER)	18b	H311862	CENTER SP GRILL MESH ASSY (60")
⚠ U406	GK00271	SP-12M SPEAKER (WOOFER)	18c	32110063	SPEAKER GRILL ASSY (R)
⚠ V1B	DE01316	CRT P16LFT00 BMB EU	18d	32110064	SPEAKER GRILL ASSY (L)
⚠ V1G	DE01315	CRT P16LFT00 HLA EU	E002	2169513	COIL LX-ZCAT2032
⚠ V1R	DE01314	CRT P16LFT00 RFA EU	E003	2169513	COIL LX-ZCAT2032
#	QD06611	60SDX88B CABINET ASY	E004	2169513	COIL LX-ZCAT2032
#10	QD04112	60" BACK COVER PS	E005	2169513	COIL LX-ZCAT2032
#100	H810131	4*14 HEX HEAD WHSP SCREW	E006	2169513	COIL LX-ZCAT2032
#110A	H311141	CABINET WIRE CLAMP	E007	2169512	CLAMP NOISE FILTER ZCAT3035
#111	PH06514	TERMINAL HOLDER DP86 SASSY	E301	HL00717	RCT CLU-617MP
#121	NT00992	CHASSIS FRAME AP83 R1 PS (94V-0)	E3B	2958351	CONN. W/WIRE MINI 2J
#121	PH06312	TERMINAL HOLDER DP86 PS (94V-0)	E3G	2958351	CONN. W/WIRE MINI 2J

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PART NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
E3R	2958351	CONN. W/WIRE MINI 2J	N001A	MD04671	SHIELD CASE DP85A TC-30 T=0.4
E902	3739671	AC CORD HOLDER	N001B	MD04681	SHIELD PLATE DP85A TC-30 T=0.4
EAN	2974056S	3J CONNE SEH UL1007 L=160	N003	3700342	WIRE CLAMP V0
EAS1	2908761	CONNE. 6P L=560	N004	3876031H	WIRE CLAMP W
EAS2	2908881	CONNE. 10P L=560	N005	3728273	PURSE LOCK (8)
ECL	EF05961	3P CONNECTOR (L=1500 N.C#3)	N006	3785502	V LOCK 11.5
ECR	EF05962	3P CONNECTOR (L=1000 N.C#3)	N007	3785522	V LOCK 20
ECV	H210798	CO-05C-CR2507-B-470	N165	3734532	LEAD CLAMPER B
ED11	EY00791	PJX-LEAD-PLUGPIN	N200B	KQ00732K	SBB LENS SASS B
ED12	EY00791	PJX-LEAD-PLUGPIN	N200G	KQ00731K	SBB LENS SASS RG
ED13	EY00791	PJX-LEAD-PLUGPIN	N200R	KQ00731K	SBB LENS SASS RG
ED91	EY00791	PJX-LEAD-PLUGPIN	N201	QR27772	60SDX88B INSTRUCTION BOOK
ED92	EY00791	PJX-LEAD-PLUGPIN	N211	H462561	EASY GRAPHIC GUIDE DP86
ED94	EY00791	PJX-LEAD-PLUGPIN	N401	MC00135	SURROUND HEAT SINK W=60 A6063S-T5
EDC1	EF08281	CO-05C-C2R5-102 LOCK	N401A	4520883	3*12 SCREW WITH WASHER
EDF	EF05941	4P CONNECTOR (L=1000 N.C#2,3)	N402	MC00135	SURROUND HEAT SINK W=60 A6063S-T5
EDS1	2908947	12J CONNE. L=1000	N402A	4520883	3*12 SCREW WITH WASHER
EF91	2721351	FUSE HOLDER	N403	MC00135	SURROUND HEAT SINK W=60 A6063S-T5
EFC	2974086S	CONNE 4P L=160	N403A	4520883	3*12 SCREW WITH WASHER
EFF	EF08451	CO-01A-A0R0-241-ORA	N601	MA01112	HEAT SINK (V) DP86A A1100P-H14
EFS	2973897S	CONNE. 9P L=1000	N602	4520883	3*12 SCREW WITH WASHER
EFT	EF08711	CO-11C-C2R5S102	N603	MF00371	MICA SHEET (DP86)
EGB1	EF08261	CO-08B-B2R5-301	N701	MA01091	POWER HEAT SINK METAL (B) 1 A1100P-H14
EGB2	2998593	CO-04B-B2R5-301	N702	4520883	3*12 SCREW WITH WASHER
EH01	2771892	FERRITE BEADS CORE (004)	N703	KL00051	IC SPRING
EL	EF05931	5P CONNECTOR (L=1500 N.C#5)	N704	2786301	TRANSISTOR SPACER (TO-3P)
EQA1	EF08291	CO-06C-C2R5-122 LOCK	N705	2786281	MICA SHEET
EQD1	EF08251	CO-04C-C5R0-122 LOCK	N711	NA03111	CHASSIS PWB BKT AP5 CL1 SECC20/20E
EQD2	EF08301	CO-07C-C2R5-102 LOCK	N715	NA20921	CHASSIS PWB BKT AP7X L1 SECC20/20E
EQS1	EF08321	CO-09C-C2R5-102 LOCK	N721	4491082	CHASSIS PWB BKT FB2 SECC20/20E
EQS2	EF08311	CO-08C-C2R5-102 LOCK	N725	NA03131	CHASSIS PWB BKT AP5BB1SECC20/20E
EQS4	EF06332	CO-03C-C5R0-122 LOCK	N730	4159427	3X10 SCREW WITH WASHER STEEL
ER	EF05951	4P CONNECTOR (L=1500)	N740	4531761	SCREEN 3X16 TAPPING W/S-WASHER STEEL
ERG1	EF08271	CO-06B-B2R5-301	N745	2781697	YC20A INSULATION WASHER
ERG2	2998593	CO-04B-B2R5-301	N801	3763751	SK BINDER
ES1	EF02233	CO-09C-N2R0-322 (PH)	N803	4340676	HEATSINK A6MM
ES2	EF02242	CO-10C-N2R0-262 (PH)	N803N	4520883	3*12 SCREW WITH WASHER
ES3	EF02253	CO-06C-N2R0-152 (PH)	N853	4340676	HEATSINK A6MM
ESP2	EF08461	CO-04C-C2R5-681 LOCK	N853N	4520883	3*12 SCREW WITH WASHER
ETU1	2979173	PLUG WITH COAXIAL CABLE	N8A3	4340676	HEATSINK A6MM
ETU2	2979172	MINI PLUG WITH COAXIAL CABLE	N8A3N	4520883	3*12 SCREW WITH WASHER
EVC	2997971	1P CONNE L=450	N9A1	MA01051	POWER HEAT SINK DP85A A1100P-H14
EVGB	EF08811	CO-01C-F 0R0-351-1015	N9AM	4159427	3X10 SCREW WITH WASHER STEEL
EVGG	EF08811	CO-01C-F 0R0-351-1015	N9AN	4531761	SCREEN 3X16 TAPPING W/S-WASHER STEEL
EVGR	EF08811	CO-01C-F 0R0-351-1015	N9B1	NA40011	POWER PWB METAL DP85A SECC20/20E
EVMB	EF08791	C0-03C-C2R5S451 VM	N9BN	4531761	SCREEN 3X16 TAPPING W/S-WASHER STEEL
EVMG	EF08791	C0-03C-C2R5S451 VM	NCPB	MD04561	CPT PWB SHIELD DP85A TC-30
EVMR	EF08791	C0-03C-C2R5S451 VM	NCPG	MD04561	CPT PWB SHIELD DP85A TC-30
EZC	H210621	4J EH(IDC) CONNECTOR	NCPR	MD04561	CPT PWB SHIELD DP85A TC-30
EZC	H210887	C0-08C-C2R507-B-750	ND1N	4520883	3*12 SCREW WITH WASHER
JS01	ES00132	5PJACK	ND1W	4269926	WASHER PL-1252
JS02	ER00121	2L4P LEVER TERMINAL	ND3F	MA01061	POWER SUB HEAT SINK 85A A1100P-H14
JS03	ES00133	6PJACK	ND3N	4520883	3*12 SCREW WITH WASHER
JY01	ES00119	JACK(15PIN)	ND9N	4520883	3*12 SCREW WITH WASHER
JY02	ES00022	3P(SW) PIN JACK WITH S	NE24	4340676	HEATSINK A6MM
N001	3763751	SK BINDER	NE24N	4520883	3*12 SCREW WITH WASHER

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PART NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
NE24S	9414017	SILICONE COMPOUND(G-746)	PDF	ED01596U	PLUG CP-04BP5R0VU-TBL#2,3N
NE25	4340676	HEATSINK A6MM	PDG	ED00572	CP-TAC-L15X-A1
NE25N	4520883	3*12 SCREW WITH WASHER	PDS	ED00576	CP-TAC-L20X-A1
NE25S	9414017	SILICONE COMPOUND(G-746)	PDS1	2959062	PIN POST (PH 12P)
NF01	MC00104	HEAT SINK P10 H45 19 A6063S-75	PFC	2902263	PLUG PIN SUB MINI 4P
NF02	4520883	3*12 SCREW WITH WASHER	PFC1	2675593	15P PLUG PIN
NH01	MA01081	POWER HEAT SINK METAL (A) 1 A1100P-H14	PFC2	2675593	15P PLUG PIN
NH02	4520883	3*12 SCREW WITH WASHER	PFS	2902248	PLUG PIN SUB MINI9P
NH03	KL00051	IC SPRING	PFS	2902268	PLUG PIN SUB MINI 9P
NH11	NT00981	FBT HOLDER AP74 PS(HI=100%)	PFT	2902251	11P PLUG PIN
NH12	4519505	3*16 B-TITE SCREW	PFT	2902251	11P PLUG PIN
NI3F	3446473	HEATSINK H30 P10	PGV	2661751	2P PLUG PIN WITH BASE
NI3N	4520883	3*12 SCREW WITH WASHER	PL	2903545	5P PLUG PIN WITH BASE
NI4F	3446473	HEATSINK H30 P10	PMB	ED01597U	PLUG CP-06BP5R0VU-TBL#3,5N
NI4N	4520883	3*12 SCREW WITH WASHER	PMG	ED01597U	PLUG CP-06BP5R0VU-TBL#3,5N
NI7F	3446473	HEATSINK H30 P10	PMR	ED01597U	PLUG CP-06BP5R0VU-TBL#3,5N
NI7N	4520883	3*12 SCREW WITH WASHER	PP1	2663821	2P SUB MINI PLUG PIN
NI8F	3446473	HEATSINK H30 P10	PQA1	ED00385	PLUG 6P LOCK 2.5MM JST
NI8N	4520883	3*12 SCREW WITH WASHER	PQD1	ED01853	PLUG 5289-4A
NK01	3446473	HEATSINK H30 P10	PQD2	ED00386	PLUG 7P LOCK 2.5MM JST
NK02	3446473	HEATSINK H30 P10	PQS1	ED00388	PLUG 9P LOCK 2.5MM JST
NK03	4520883	3*12 SCREW WITH WASHER	PQS2	ED00387	PLUG 8P LOCK 2.5MM JST
NK04	4520883	3*12 SCREW WITH WASHER	PQS4	ED01852	PLUG 5289-3A
NK05	MC00193	CONV. HEAT SINK L=60 DP85 A6063S-T5	PR	2903544	4P PLUG PIN WITH BASE
NK06	4520885	3*16 SCREW WITH WASHER	PRV	2661751	2P PLUG PIN WITH BASE
NK07	4531761	SCREEN 3X16 TAPPING W/S-WASHER STEEL	PS1	2959058	PINPOST 9P PH
NK08	NA20781	CONV. IC SUPPORT BKT AP74 SECC20/20E	PS2	2959059	PLUG PH PIN POST 10P
NM71	3816161	G9 EE HOLDER (S)	PS3	2959055	CONNECTOR-6P(PH)
NM72	NJ01171	LED HOLDER A5WS	PSD1	ED01471U	PLUG 07BP1R2HUTWGP-A1
NP9A	MA01071	HEAT SINK DP85 (C) A1100P-H14	PSD1	ED01491U	CONNECTOR 07BS1R2VUTWGX-A1
NPF2	3763751	SK BINDER	PSD2	ED01473U	PLUG 13BP1R2HUTWGP-A1
NPIN	4520883	3*12 SCREW WITH WASHER	PSD2	ED01493U	CONNECTOR 13BS1R2VUTWGX-A1
NQ1F	3446473	HEATSINK H30 P10	PSD3	ED01472U	PLUG 11BP1R2HUTWGP-A1
NQ1N	4520883	3*12 SCREW WITH WASHER	PSD3	ED01492U	CONNECTOR 11BS1R2VUTWGX-A1
P801	2661751	2P PLUG PIN WITH BASE	PSD4	ED01472U	PLUG 11BP1R2HUTWGP-A1
P802	2661756	1P PLUG PIN WITH BASE	PSD4	ED01492U	CONNECTOR 11BS1R2VUTWGX-A1
P851	2661751	2P PLUG PIN WITH BASE	PSP2	ED00383	PLUG 4P JST2.5ROCK
P852	2661756	1P PLUG PIN WITH BASE	PST1	ED00516	CP-TAC-L20P-A1
P8A1	2661751	2P PLUG PIN WITH BASE	PST1	ED00576	CP-TAC-L20X-A1
P8A2	2661756	1P PLUG PIN WITH BASE	PST2	ED00516	CP-TAC-L20P-A1
PAS1	2959055	CONNECTOR-6P(PH)	PST2	ED00576	CP-TAC-L20X-A1
PAS1	2959055	CONNECTOR-6P(PH)	PST3	ED00516	CP-TAC-L20P-A1
PAS2	2959059	PLUG PH PIN POST 10P	PST3	ED00576	CP-TAC-L20X-A1
PAS2	2959059	PLUG PH PIN POST 10P	PSU1	ED00516	CP-TAC-L20P-A1
PBV	2661751	2P PLUG PIN WITH BASE	PSU1	ED00576	CP-TAC-L20X-A1
PCB	2903544	4P PLUG PIN WITH BASE	PSU2	ED00516	CP-TAC-L20P-A1
PCG	2903544	4P PLUG PIN WITH BASE	PSU2	ED00576	CP-TAC-L20X-A1
PCL	2903543	3P PLUG PIN WITH BASE	PSZ1	ED00516	CP-TAC-L20P-A1
PCR	2903543	3P PLUG PIN WITH BASE	PSZ1	ED00576	CP-TAC-L20X-A1
PCR	2903544	4P PLUG PIN WITH BASE	PSZ2	ED00516	CP-TAC-L20P-A1
PCV	2902264	PLUG PIN SUB MINI 5P	PSZ2	ED00576	CP-TAC-L20X-A1
PDC1	ED00384	PLUG 5P LOCK 2.5MM JST	PTSB	2663821	2P SUB MINI PLUG PIN
PDD1	ED00198	10P CONNECTOR WITH LOCK	PTSG	2663821	2P SUB MINI PLUG PIN
PDD1	2675588	10P PLUG PIN	PTSR	2663821	2P SUB MINI PLUG PIN
PDD2	ED00198	10P CONNECTOR WITH LOCK	PVC1	2661756	1P PLUG PIN WITH BASE
PDD2	2675588	10P PLUG PIN	PVC2	2661756	1P PLUG PIN WITH BASE

REPLACEMENT PARTS LIST

PRODUCT SERVICE NOTE: Components marked with a ⚠ have special characteristics important to safety. Before replacing any of these components, read carefully, the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

PART NO.	PART NO.	PART DESCRIPTION	SYMBOL NO.	PART NO.	PART DESCRIPTION
PVMB	2902262	PLUG PIN SUB MINI 3P			
PVMG	2902262	PLUG PIN SUB MINI 3P			
PVMR	2902262	PLUG PIN SUB MINI 3P			
PVS1	2903543	3P PLUG PIN WITH BASE			
PYC1	ED01783	PLUG 23P-HQM-1			
PYC2	ED01783	PLUG 23P-HQM-1			
PZC	2902247	PLUG PIN SUB MINI 8P			
PZC	2902267	PLUG PIN SUB MINI 8P			
PZV	2902243	PLUG PIN SUB MINI 4P			
PZV	2902263	PLUG PIN SUB MINI 4P			
W801	EK00061	WIRE (PROCESSED)			
W802	2692463	CONNECTOR FOR FOCUS			
W851	EK00061	WIRE (PROCESSED)			
W852	2692463	CONNECTOR FOR FOCUS			
W8A1	EK00062	WIRE (PROCESSED) FOR SCREEN			
W8A2	2692464	CO-01C-N0R0-821FOCUS			
X001	2163971	CERAMIC FILTER 4MHZ			
X701	2786681	CERAMIC OSCILLATOR 500KHZ			
XS01	2786585	CRYSTAL RESONATOR 8.000MHZ			